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“Seeing” urban agriculture practices “from the South”: the case of the settlement *La lucha de los pobres* (the struggle of the poor) in Ecuador

« Voir » les interventions d’agriculture urbaine selon « des perspectives du Sud » : le cas du quartier *La lucha de los pobres* (la lutte des pauvres) en Équateur

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Résumé

Dans un contexte de crise multidimensionnelle, l'agriculture urbaine dans les quartiers informelles et à faibles revenus du Sud est souvent perçue comme une stratégie visant à atténuer l'insécurité alimentaire et la pauvreté urbaine. Toutefois, des théories émergentes suggèrent que ces pratiques dépassent une réponse à la crise, en reflétant des dynamiques socio-spatiales, culturelles et environnementales plus complexes. Néanmoins, le rôle de la planification urbaine et des réglementations municipales dans la promotion de ces pratiques reste peu exploré.

J'analyse l'agriculture urbaine en milieu informel, à travers la perspective théorique de Vanessa Watson – telle que « *Seeing from the South* ». J'explore comment elle peut contribuer à des interventions et des politiques urbaines plus inclusives et sensibles au contexte. L'étude porte sur trois interventions distinctes d'agriculture urbaine dans le quartier *La lucha de los pobres* (La lutte des pauvres) à Quito, en Équateur. Ma démarche méthodologique qualitative inclut une 13 entretiens semi-structurés, deux observations semi-participatives, des *focus groups* avec 13 participants, deux enquêtes totalisant 139 répondants, ainsi qu'une analyse documentaire et des écrits.

Mes résultats révèlent comment les interventions d'agriculture urbaine sont liées à deux notions clés : le continuum formel-informel et les rationalités conflictuelles en aménagement. Cette étude contribue à l'avancement de la compréhension de l'agriculture urbaine en tant que pratique dynamique, complexe et multifonctionnelle au sein des systèmes urbains informels. Elle met également en évidence le potentiel de ces interventions « *bottom-up* » pour inspirer des stratégies d'aménagement plus adaptatives, participatives et équitables pour les communautés à faibles revenus et vulnérables.

Mots-clés : Informalité urbaine, continuum formel-informel, rationalités conflictuelles, quartiers à faible-revenu, quartiers informels, agriculture urbaine, Équateur, Quito.

Abstract

In the context of intersecting crises, urban agriculture in informal, low-income settlements in cities of the Global South is often regarded as a reactive strategy to mitigate both food insecurity and urban poverty. However, emerging theories suggest that these practices transcend crisis response, reflecting broader socio-spatial, cultural, and environmental dynamics. Nevertheless, the role of urban planning and municipal regulation in shaping such activities remains underexplored.

My research investigates how urban agriculture in informal contexts, when "seen" through Vanessa Watson's southern theoretical perspective, can inform more inclusive, context-sensitive planning. Focusing on three distinct urban agriculture interventions in the settlement *La lucha de los pobres* (The struggle of the poor) in Quito, Ecuador, I employed a qualitative approach, including 13 semi-structured interviews, two semi-participant observation sessions, focus groups with 13 participants, surveys with 139 respondents, document and literature analysis.

Findings reveal the extent to which these practices both align with, and challenge, key theoretical constructs such as the formal-informal continuum and "clashing rationalities" in planning. They offer new insights into the spatial, sociocultural, environmental, and political dimensions of urban informality, contributing to a more nuanced understanding of urban agriculture as a dynamic, complex, and multi-functionality practice within informal urban systems. It also highlights the potential of these bottom-up interventions to inform more adaptive, participatory, and equitable planning strategies in low-income and vulnerable communities.

Keywords: Urban Informality, Formal-Informal Continuum, Clashing Rationalities, Low-income Settlements, Informal Settlements, Urban Agriculture, Ecuador, Quito.

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List of acronyms and abbreviations

DMQ: *Distrito Metropolitano de Quito* (Metropolitan District of Quito).

FLACSO: *Facultad Latinoamericana de Ciencias Sociales* (Latin-American School of Social Sciences).

GRIF: *Groupe de recherche de processus intégré et d'innovation pour le cadre bâti, Université de Montréal*. In English: Integrated processes and innovation for the built environment Research group at *Université de Montréal*.

IDRC: International Development Research Center (Canada).

LLDLP: *La lucha de los pobres*, also known as "*La lucha"* (the struggle of poor people). Informal and low-income settlement in Quito, Ecuador.

LR: *La Requilina*, a low-income and peri-urban settlement in Usme (Bogotá, Colombia).

OD: Œuvre Durable or *Observatoire universitaire de la vulnérabilité, de la résilience et de la reconstruction durable.* In English: Disaster, Resilience and Sustainable Reconstruction Research Alliance.

RS: Survey conducted by Rodríguez Badillo (2025) in 2022.

SS: Survey conducted by SUSTENTO researchers in 2022.

SUSTENTO: International research project developed by OD and funded by IDRC. It is focused on enhancing the resilience of alternative food systems in informal settings in Latin America and the Caribbean through bottom-up initiatives in the built environment.

UA: Urban agriculture.

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Chapter 1 – Introduction

Core motivations and affiliations

The present inquiry is driven by the inconsistencies I observed in architectural and planning responses concerning low-income and informal communities in Latin America. Drawing from my experiences as an architect and researcher in both public and private sectors in Colombia and Bolivia, I encountered numerous claims by vulnerable populations against architecture, infrastructure, and planning projects. I perceived that professional associations and municipal institutions explored these events superficially, with limited attention to their underlying causes and motivations.

Two experiences in the Bolivian city of Santa Cruz de la Sierra highlighted the significance of this issue. One was the position I held at the Planning Department, and the other was the coordination of a research project focused on municipal infrastructure interventions, and quality of life[1]. However, during my tenure as an architecture professor in Bogotá, I became aware of inquiries by several 5th-year architecture students, as well as certain academics, regarding municipal and governmental plans, policies and projects destined for poor and vulnerable Colombian communities. Cases of governmental or municipal inadequate planning and architectural responses were abundant at the time. Now, it is my opportunity to explore the mismatches in urban and planning professional responses to low-income, poor, and vulnerable populations through this dissertation.

My work is affiliated with SUSTENTO[2], an international research network and project dedicated to studying food insecurity and alternative food systems in Latin America and the Caribbean, which was conducted from 2021 to 2025. Each one of its five research teams is affiliated with a local university or post-graduate institution, thereby extending SUSTENTO's research efforts to master and doctoral students – as me. This macro-research project is conducted among six locations: Quito (Ecuador), Cienfuegos (Cuba), Nonguén (Chile), Bogotá, Siloé and Valdivia (Colombia).

My research is also associated with the research team at FLACSO Ecuador, specifically with professors Myriam Paredes and Sara Latorre. These researchers have studied for many years the case of *La lucha de los pobres* neighborhood in Quito.

[1] *Cf.* Gonzales Faria & Serrano Serrano (2014).
[2] See List of acronyms and abbreviations.

Furthermore, the financial support for my research was provided in part by SUSTENTO, as was the case for other junior researchers affiliated with research teams across Latin America and the Caribbean.

Interrelations in Urban informality and Urban agriculture

The primary focus of this study is to examine the interrelations between urban informality and urban agriculture, two prominent urban trends in the Global South. I initially intended to examine these issues through an analysis of bottom-up interventions in two settlements pursued by SUSTENTO in Quito and Bogotá. This was a strategic decision aimed at maximizing communication and exchanges with residents who shared a maternal language and jargon with me. The other sites on which SUSTENTO was working presented culturally significant differences with my experiences, which could result in delays to my work in the field.

One of the study sites is a low-income and informally developed neighborhood in the southern part of Quito. *La lucha de los pobres* neighborhood (The struggle of the poor or LLDLP) was founded in 1983 by rural immigrants seeking refuge from severe droughts in agricultural regions of Ecuador. The second site is a rural settlement on the outskirts of Bogotá called *La Requilina* (LR).

Following site explorations between 2022 and 2023, I selected the settlement of LLDLP as representative case study, followed by the identification of three distinct urban agriculture interventions for further examination.

Document structure

The following chapters are organized from theoretical foundations to empirical analysis, culminating in a synthesis of findings, discussions, and contributions. Each chapter builds upon the previous one, to construct a coherent narrative around the study of urban agriculture within the context of urban informality in Latin America.

In the opening, chapter 2 describes the main problem, objective and two research questions. In chapter 3, I introduce the conceptual framework, drawing from key shifts in planning theory, notably regarding planning problems and the evolving discourse on urban informality. This serves as the theoretical foundation for the analysis that follows.

Chapter 4 provides a multiscalar contextual analysis, beginning with national dynamics, narrowing to the city of Quito, and finally focusing on *La lucha de los pobres* setllement. This chapter

establishes the multidimensional crises that have shaped urban life, particularly for vulnerable populations. In chapter 5, I examine the distinctive characteristics that contribute to and regulate the development of urban agriculture practices in Quito. The chapter provides an overview of key organizations, municipal restrictions, as well as public policies regarding these interventions.

Chapter 6 details the methodology, including the design and data collection strategies; and chapter 7 presents the results of the empirical investigation. This chapter offers a detailed account of the data analysis and key take-aways.

In chapter 8, I describe the methodological and theoretical limitations encountered during the investigation. Chapter 9 engages in a critical discussion of the results interpreted through the lens of the conceptual framework. Finally, it offers key recommendations based on the study's insights. Finally, in chapter 10, I summarize the main contributions and reflect on the study's theoretical and practical implications.

It should be noticed that all figures, pictures, and tables were developed by the author, unless otherwise indicated.

Chapter 2 – Research description

Research problem

In recent decades, the Southern regions of the world[3] have become the setting for major urban transformations. However, dominant urban theories and planning paradigms remain primarily rooted in Euro-North American contexts and institutions (Roy, 2009; Watson, 2009, 2014). As a result, municipal planning in the Global South often implements strategies that prove ineffective in addressing local challenges, particularly those affecting poor and vulnerable populations (Mukhopadhyay & Hammami, 2021; Roy, 2005; Watson, 2009). Despite growing awareness of these theoretical and practical mismatches, they continue to shape urban interventions across the South.

The phenomenon of urban informality constitutes a subject of increasing discussion within the field of planning theories. This growing global trend is commonly defined as self-help construction, auto-construction, or informal housing and urbanization. Authors and organizations, such as Davis (2006); Roy (2005); United Nations Human Settlements Programme (2003), argue that urban informality reflects complex and multidimensional dynamics of "global forces mediated in local contexts" (Watson, 2009, p. 2264).

While several international agencies and Southern governments have allocated significant resources to address urban informality and social housing[4], they often frame these phenomena within a crisis or planning problems (Roy, 2005; Watson, 2009). However, Roy (2005) challenges this paradigm by proposing that urban informality can be defined as a "mode of urbanization". In her article, she provides a thorough justification for this conceptualization by examining cases of continuum between formal and informal urban systems. Similarly, Watson (2009) introduced the notion of "conflicting rationalities", in which she targets two opposing rationalities: governing and administration *versus* survival. She explores the tricky positioning of planning in the interface where both rationalities meet. Challenging the dichotomy proposed by Watson and others,

[3] These territories may be referred to as 'developing countries', 'Global South' or 'Third World Cities'. Each term is associated with different connotations, ambitions, and intentions. *Cf.* Mukhopadhyay & Hammami, 2021. In my study, I will not employ these terms due to their potential for misleading interpretation.

[4] *Cf.* Gilbert (2007) for a more comprehensive understanding of how sometimes initiatives led by organizations can be unproductive (or prejudicial) to poor and vulnerable populations.

Lizarralde (2015) identifies four frameworks through which low-cost housing in developing countries are often interpreted: survival, heroism, romanticism, and technocracy.

Scholars affiliated with Southern planning theories – such as Vanessa Watson and Ananay Roy – advocate for a more nuanced and contextually grounded understanding of Southern urban realities. This encompasses a range of practices, rationalities, and spaces considered formal, informal, and everything in-between. Therefore, my conceptual framework draws upon the contributions of these two authors. The title of this dissertation pays homage to Watson's (2009) article, "Seeing from the South: Refocusing Urban Planning on the Globe's Central Urban Issues". The following chapter elaborates on the conceptual framework and the key contributions of these authors.

Urban agriculture is a widespread practice in informal and low-income neighborhoods across Latin America, particularly in peri-urban settlements inhabited by internal migrants and displaced populations – many of whom were farmers. As with urban informality, stakeholders often interpret urban agriculture through the lens of crisis and planning problem. More specifically, authorities and organizations tend to consider these practices as survival strategies by the urban poor to overcome or mitigate food insecurity and poverty (Castellarini, 2021; Hernández-García & Caquimbo-Salazar, 2018; Lizarralde *et al.*, 2025b).

Urban agriculture in Latin America has been studied since the 1970s, through diverse perspectives, exploring its implications for food systems, subsistence economies, environmental sustainability, and social cohesion (Asp & Alsanius, 2014; Feyereisen, 2019; Food and Agriculture Organization of the United Nations, 1999, 2014; Kmec, 2016; Palat Narayanan & Véron, 2018; Vitiello & Brinkley, 2013). Recent studies call for more integrated and holistic perspectives. For instance, Castellarini (2021) describes urban agriculture in Southern regions as a "complex activity that involves multiple benefits, risks, actors, processes, scales, and interactions" (p. 1).

Despite this growing body of literature, limited research explores urban agriculture as a form of urban intervention; particularly in relation to its role in shaping urban space, and its interaction with urban planning mechanisms (Parham, 2020). My dissertation aims to contribute to critical discourses on urban informality by analyzing a representative case study of urban agriculture.

Main objective

The theoretical framework guiding my research draws upon the epistemological contributions of Roy and Watson. The work of these authors, situated within the Southern planning theories, offers valuable insights into urban and planning studies. These theories aim to enhance our comprehension of urban dynamics and developments by examining local strategies, values, and constraints – notably those that are not encompassed in mainstream planning theories and practices.

Accordingly, my main objective is **to analyze the physical characteristics, barriers, and drivers of various urban interventions, with a particular focus on the knowledge and experiences of those residing in the study area**. A comparative analysis is conducted with two additional stakeholder groups – municipal authorities and national academics – to identify convergences and divergences between their perspectives and those of the residents.

Research questions

Between 2022 and 2023, as I explored urban agriculture interventions in the settlements of LLDLP and LR, my research questions evolved continuously (see Table 1).

Table 1

Evolution of research questions

1st visit to LLDLP	2nd visit to LLDLP	1st visit to *La Requilina*
1. Which concepts in design theories can properly observe and analyze urban agriculture initiatives in the Global South?	1. How can urban agriculture projects from the South be observed and analyzed properly in the context of urban informality?	1. How can urban agriculture initiatives in LLDLP and LR be observed and analyzed through the notion of project in the context of urban informality?
2. What can architects and urbanists learn from urban agriculture initiatives in the Global South?	2. How can informal projects from the South, such as urban agriculture inform design, urban and planning practices?	2. How can urban agriculture initiatives in LLDLP and LR inform design, urban and planning practices?

The field explorations represented in Table 1 guided the selection of one representative case study and three urban agriculture interventions within it. Aligned to my main objective, the

explorations enriched my understanding of the context and informed the two research questions that underpin my dissertation:

1. How do the selected urban agricultural interventions in LLDLP align within the notion of clashing rationalities in urban planning?
2. How may the notion of the formal-informal continuum be examined in the selected urban agriculture interventions in LLDLP?

Chapter 3 – Conceptual framework

This chapter presents a comprehensive (yet not exhaustive) examination of the limitations and possibilities that accompanied the evolution of planning theories during two periods of paradigm shift. Progressing from general to specific, I will present the theoretical foundation for the subsequent analysis and discussion of results.

In this study, the concept of paradigm is defined as “the overall view that scientists of a given era have of the reality to be studied, and the methods appropriate to that study” (Kuhn, 1970 in Stirn & Vautrelle, 1998, p. 69). Additionally, epistemology is characterized as the pursuit “to understand one or another kind of cognitive success (or, correspondingly, cognitive failure)” (Steup & Neta, 2024).

The first paradigm, referred to as the “professional knowledge crisis”, will be described in two phases. I will present the epistemological crisis and its transition process, followed by a key epistemological advancement: the conceptualization of planning problems. The second paradigm shift, advocated by the Southern Planning Theories, will be presented similarly. This will be followed by an examination of urban informality, since it is a central component of this paradigm and a framework for the notions in the research questions (clashing rationalities and the formal-informal continuum).

Professional Knowledge Crisis

From the 1960s to the 1980s, scholars and professionals in the fields of design and engineering underwent major epistemological self-questioning and inquiry. This period was marked by unsuccessful architectural and urban projects, sociocultural and technological transformations, and increased scrutiny from civil society (Cross, 1981; Darke, 1979; Le Moigne, 2021; Rittel, 1973; Schön, 2001; Simon, 1969).

Prior to this crisis, the “implicit epistemology of practice” served as the primary mechanism for ensuring rigorous professional practice (Schön, 2001, pp. 186-188). The validity and reliability of professional knowledge were rooted in Rationalism and Cartesian discourse, which, according to Rittel and Webber (1984, p. 84), represented the “classical paradigm of science and engineering”.

As Schön (2001, p. 187) explains, this paradigm prioritized “methodological rigor and purity” in scientific advancements and teachings. However, rationalism began to demonstrate its limitations,

particularly in the sphere of “socio-economical human organizations” (Le Moigne, 2001, p. 3). Bousbaci (2008, pp. 47-48) points out that “logical or rationalist approaches are not completely suited to understand such (design) problems”.

Significantly, the scope of design theories and practices extends beyond the domains of basic and applied sciences, encompassing the social sciences as well. During this period, advancements in the social sciences diverge from the scientific principle of formulating a hypothesis, followed by its eventual failure or refutation. In this domain, the emergence of theoretical frameworks often occurs without disproving or invalidating previous work (Kuhn, 1970 in Cross, 1981). This principle facilitates the coexistence of multiple theories – which can sometimes be divergent. Therefore, it is not uncommon to encounter clashing theories, approaches, or perspectives of phenomena in urban design and planning (Hillier *et al.*, 1972 *in* Bousbaci, 2008; Popper, 1961 in Rittel, 1973).

The decades that followed these epistemological explorations are referred to as the post-rationalist period. This era gave rise to a variety of new concepts, theories, and approaches to knowledge and knowing, such as complexity and systems thinking. Moreover, this paradigm shift contributed to the critical recognition of the inherent complexity, uncertainty, and wickedness of planning problems (Le Moigne, 2021; Morin & Le Moigne, 1999; Rittel & Webber, 1984; Schön, 2001).

Planning problems

To comprehend the significance of this enhanced comprehension of planning problems, it is imperative to acknowledge that during the Rationalist and Cartesian period, most practitioners were burdened with a dichotomy between rigor and relevance. As Rittel and Webber (1973, p. 156) have noted, “the professional’s job was once seen as solving an assortment of problems that appeared to be definable, understandable and consensual”. Schön (2001, pp. 188-189) elaborates on this dilemma by key concepts such as “indeterminate zones of practice” and “dominant view of professional rigor”.

> When planners […] convert an uncertain situation into a solvable problem, they construct […] not only the means to be deployed but the ends-in-view to be achieved. In such problem-setting, ends and means are reciprocally determined. And often, in the unstable world of practice, where methods and theories developed in one context are unsuited to another, practitioners function as researchers, inventing the techniques and models appropriate to the situation at hand (Schön, 2001, p. 189).

Concurrently, theorists and practitioners expanded the boundaries of the problem-solving approach to encompass planning and societal problems, while challenging the assumptions of technical rationality and rigorous practice (Bousbaci, 2008; Rittel & Webber, 1973; Schön, 2001). This facilitated the development and growing understanding of the 'high complexity' of these problems, setting them apart from problems found in other disciplines (Bousbaci, 2008, p. 41). For instance, Rittel and Webber (1973, p. 160) proposed that "planning problems are wicked problems", and produced ten properties to better understand them (see Table 2). It is noteworthy that certain characteristics of complex and systems thinking are clearly reflected in their description.

Table 2

10 properties of a wicked problem (based on Rittel & Webber, 1984)

1. There is no definitive formulation of a wicked problem (Rittel & Webber, 1973, p. 161).	**2.** Wicked problems have no stopping rule (p. 162).
3. Solutions to wicked problems are not true-or-false, but good-or-bad (p. 162).	**4.** There is no immediate and no ultimate test of a solution to a wicked problem (p. 163).
5. Every solution to a wicked problem is a "one-shot operation"; because there is no opportunity to learn by trial-and-error, every attempt counts significantly (p. 163).	**6.** Wicked problems do not have an enumerable (or exhaustive describable) set of potential solutions, nor is there a well-described set of permissible operations that may be incorporated into the plan (p. 164).
7. Every wicked problem is essentially unique (p. 164).	**8.** Every wicked problem can be considered to be a symptom of another problem (p. 165)
9. The existence of a discrepancy representing a wicked problem can be explained in numerous ways. The choice of explanation determines the nature of the problem's resolution (p. 166).	**10.** The planner has no right to be wrong (p. 166).

In summary, planning problems were characterized in this period as those that resist definitive solutions and necessitate iterative, reflexive approaches (Le Moigne, 2021; Morin & Le Moigne, 1999; Rittel & Webber, 1984; Schön, 2001). As time progressed, the paradigm of problem-solving shifted towards a problem-defining and situation-based approach (Bousbaci, 2008). This shift was

influenced by the growing interest in the study of complex cognitive behaviors[5]. Table 3, interpreted from Bousbaci (2008) presents eight selected conceptual propositions that illustrate this evolution.

Table 3

Problem-solving and problem-defining theoretical propositions

"The problem of problem-setting is not a well-formed problem" (Rein & Schön, 1977 *in* Schön, 2001, p. 190)	"One of the most intractable problems is that of defining problems" (Rittel & Webber, 1973, p. 159)
Wicked, malignant, vicious, tricky, aggressive, and ill-defined problems; as opposed to tamed or benign problems (Rittel & Webber, 1973, p. 160)	"The formulation of a wicked problem is the problem!" (Rittel & Webber, 1973, p. 161)
"The structure of ill structured problems" (Simon, 1973)	"Doubly open-ended problems" (Wehrli, 1968 in Darke, 1979)
"Problem space" and "Generative processes" (Newell & Simon, 1972)	"Problem-space" and "Solution-space" (Maher & Poon, 1996 in Zahedi et al., 2017, p. 4617)

Southern planning theories

Following the preceding epistemological crisis, which forged a crucial understanding of the complexity and wickedness of planning problems, a new challenge emerged in planning theory in the early 21st century. This paradigm shift has been influenced, in part, by new urban conditions and by authors affiliated with Southern planning theories, including Vanessa Watson and Ananay Roy. My analysis of urban informality, clashing rationalities, and the formal-informal continuum in this study is primarily grounded in the work of these scholars.

In essence, Southern planning theorists critique the universalism of Western planning frameworks, while advocating for context-specific, inclusive, and situated approaches – notably in Southern regions of the world (de Sousa Santos, 2011; Mukhopadhyay & Hammami, 2021; Roy, 2009; Watson, 2014). This epistemological phenomenon, also referred to as the "Southern turn",

[5] Extensive literature is available about the psychology of decision-making and other complex cognitive behaviors, behaviorism, and behavioral scientists.

underscores the importance of local knowledge, cultural specificity, as well as feminist perspectives, and postcolonial critique. A close examination of “highly diverse, continually in flux, and generally resistant to categorization” southern cities reveals the increasing complexity of contemporary urban planning (Watson, 2014, p. 104).

> Societal division have been increasing, partly as a result of international migration streams and the growth of ethnic minority groups in cities and partly because of growing income and employment inequalities which have intersected with ethnicity and identity in various ways (Watson, 2009, p. 2264).

In that vein, numerous authors – including Watson (2014, p. 103) – emphasize the imperative to address the planning problems that are “neglected in current debates and interests”, notably those concerning low-income, poor, and vulnerable urban populations. Similarly, Roy’s discussion about “Urban Informality: Toward an Epistemology of Planning” (2005, p. 155) stresses the imperative for planners to engage with “tricky dilemmas in social justice”.

Watson’s article, “Learning planning from the South: Ideas from the new urban frontiers” (2014), explores the negative outcomes of employing planning theories and ideas developed in other contexts than the ones they are implemented:

> Planning ideas are inevitably based on particular assumptions regarding the nature of society, economy, environment and political institutions, and since these vary significantly from place to place, such underlying assumptions must be carefully identified before they are considered for wider implementation (Watson, 2014, pp. 101-102).

Watson (2009, 2014) describes this central issue from two vantage points: the prevalence of Euro-North American ‘mainstream’ planning theories and practices; and their recurrent implementation by Southern authorities and decision-makers. This dynamic is illustrated through cases of large-scale urban projects driven by “sanitizing and modernizing ambitions” (Watson, 2014, p. 101). Watson explains that this phenomenon tends to “attract large government subsidies and this in turn drains public finance available for public space or to address the needs of poorer communities” (*Ibid*., p. 101). Another common consequence is the social and spatial/urban exclusion of certain groups, often through the displacement of poorer communities to peripheral areas or neighboring villages. Concurrently, she observes:

> Planning theory in global south regions is poorly developed and planning practitioners have very little of relevance to draw on for inspiration in dealing with the complex problems of southern cities (Watson, 2014, p. 102).

Accordingly, Roy (2005) describes a problematic paradox affecting urban studies within Southern regions. The term ‘global cities’ is typically employed to denote model cities (or best practice) located in European and North American countries. In contrast, the term ‘mega cities’ is indicative of a city in crisis and is predominantly observed in Southern countries.

Following the identification of considerable theoretical and practical gaps in the field of urban planning, Watson (2014) proposes a methodological approach: comparative case study research. This approach should foster the development of planning knowledge “from (and not simply for)” the southern contexts (*Ibid.*, p. 98). The author advocates for “contextualized and historicized grounded research which also recognizes the location of any place and process in a system of global relations” (*Ibid.*, p. 104). Lastly, she cautiously lays out the possible implications and constraints for Southern planning theories, constituting a groundbreaking contribution.

> We cannot aim to replace northern planning theory with southern planning theory, or set up artificial binaries between north and south, and certainly understandings of cities in the global south, and the planning ideas which they might inspire, can neither be generalized to the global north, nor simplistically generalized across the very diverse territories of the global south (Watson, 2014, p. 104).

Urban Informality

The evolution of the enhanced understanding of planning problems in Latin America is contextualized by the two precedent epistemological paradigm shifts. It is crucial to examine the phenomenon of urban informality, as it will inform my research on urban agriculture interventions in LLDLP low-income and informal settlement.

Urban informality has become a central subject in planning theories. This is due, in part, to the fact that these spatial and urban interventions are a predominant practice in Southern cities and regions (Clerc, 2010; McFarlane, 2008; Neuwirth, 2005; Watson, 2009). Two well-documented global trends illustrate the relevance of urban informality. First, populations are increasingly concentrated in urban areas (Davis, 2006; Watson, 2009) Second, the number of residents in “slums” and informal settlements continues to rise (UN-Habitat, 2003, p. 5).

Urban informality encompasses diverse, often self-organized practices through which space is occupied and developed outside of (or in negotiation with) formal regulatory frameworks. It is commonly associated with housing and infrastructure developments which are not compliant with official procedures. However, Watson (2009, p. 2268) posits that “informality is reaching new scales and new forms in urban areas in all parts of the world”. Indeed, urban agriculture interventions in southern cities are increasingly recognized as manifestations of urban informality (Hernández-García & Caquimbo-Salazar, 2018; Parham, 2020).

Since its emergence in the 1970s, the concept of urban informality has evolved to reflect more nuanced understandings of urban governance, spatial justice, and equality. It now embodies the tensions and intersections between formal planning systems and urban realities of southern cities, particularly in times of increasing complexity.

The formal-informal continuum

Despite the predominant perception of urban informality as a planning problem, numerous authors have pursued an alternative approach. These theorists challenge the prevailing dichotomy between formality and informality, by exploring the intricate, fluid boundaries between these two systems through their actors, interventions, and practices (Clerc, 2010; McGuirk, 2015; Lizarralde et al., 2025a; Palat Narayanan & Véron, 2018; Watson, 2009). Among the contributions of this exercise, Lizarralde *et al.* (2023) and Lizarralde *et al.* (2013) posit that formality and informality are not absolute. Palat Narayanan and Véron (2018) propose that formal and informal urban practices are not mutually exclusive. Similarly, other scholars have postulated that boundaries between formality and informality are more accurately represented as a range, scale, continuum or spectrum (Clerc, 2010; Fiori & Brandao, 2010; Koster & Nuijten, 2016; Lizarralde *et al.*, 2025a; Palat Narayanan & Véron, 2018).

The notion of a formal-informal continuum captures the fluidity of urban systems in contexts where state regulation is partial, uneven, or contested. For example, Roy (2005, p. 148) adopts a more extreme stance by “reject(ing) the notion of an informal sector and instead views informality as a *mode* of urbanization”.

> I have used the term urban informality to indicate an organizing logic, a system of norms that governs the process of urban transformation itself (Roy & AlSayyad, 2004 *in* Roy, 2005, p. 148).

This positioning allows the author to navigate various cases and advance alternative interpretations. For example, Roy identifies a “complex continuum between legality and illegality”

in certain cases of distinct informal housing (2005, p. 149). Following this observation, she recommends focusing such analyses on the variants within informality. Regarding a case of land tenure, she suggests an analysis based on a continuum of rights and claims.

Clashing rationalities in planning

The previous discussion about urban informality and the challenges planners face in Southern cities are explored in Watson's (2009) article, "Seeing from the South: Refocusing Urban Planning on the Globe's Central Issues". The author confronts two seemingly conflicting urban systems by introducing the concept of "clashing rationalities". One rationality is characterized as "techno-managerial, and marketized systems of government administration, service provision, and planning" (Watson, 2009, p. 2267). She adds that this system takes different forms according to the context. The other rationality is described as the "increasingly marginalised urban populations surviving largely under conditions of informality" (*Ibid.*, p. 2267).

Following the description of both systems, the author presents the concept of interface. She claims that "a central concern for planning is how to locate itself relative to conflicting rationalities", while acknowledging that additional rationalities could clash in a city (*Ibid.*, p. 2269). However, she maintains that these two rationalities are essential to planning, and indicates that the positioning of urban dwellers in one rationality is not permanent since these constitute an "imaginary divide" (*Ibid.*, p. 2269).

> The interface is a zone of encounter and contestation between these rationalities and is shaped by the exercise of power. For the poors and the informals, it is a zone of resistance, of evasion or of appropriation. It is the point at which state efforts at urban development and modernization […], urban administration or political control […] and market regulation and penetration, are met, or confronted, by their 'target populations' in various and complex ways, and these responses in turn shape the nature of interventions (Watson, 2009, p. 2270).

According to Watson (2009), this framework has the potential to facilitate the understanding of the unintended or negative outcomes in planning practices and policy interventions.

Analysis criteria

The two epistemological paradigm shifts illustrate the evolution of planning problems marked by significant failures in an increasingly complex context. Despite ongoing debates and opposing

views, the array of advancements in urban informality facilitates a better understanding of this central 21st century issue. These contributions challenge rigid regulatory distinctions and create space for alternative urban imaginaries. In this study, I will examine urban informality through urban agriculture interventions by adopting the notions of clashing rationalities and the formal-informal continuum.

For research question number 1, concerning clashing rationalities, I will analyze the drivers, benefits, limitations, and constraints of urban agriculture practices according to sample populations that appear to represent the two rationalities. Additionally, given that these practices are frequently considered as survival or subsistence responses to crisis (e.g., poverty, displacement, unemployment, etc.), I will investigate the extent to which they align with this assumption through a more context-sensitive and inclusive approach.

For research question number 2, pertaining to the formal-informal continuum, I will situate the conditions and evolution of the selected urban agriculture interventions within this spectrum. To reach the objectives of this study, I will investigate the following research sub-questions:

- How do urban agriculture interventions in LLDLP align with or diverge from formal procedures, policies, and institutions?
- What role do urban plans, public policies, and municipal interventions play in enabling or constraining the development of these practices in LLDLP?
- To what extent do formal frameworks and institutions recognize, support, or marginalize these interventions?

Chapter 4 – Context of the field study

Prior to delving deeper into the phenomenon under study, I hereby formulate a contextual and historical analysis of the neighborhood, thus providing a basis for understanding the internal and external dynamics that underpin it.

Exploration of cases

As briefly explained in previous sections, I explored two sites from 2022 to 2023 (see Figure 1). First, I conducted a site visit to the neighborhood of LLDLP in Quito, in March and September 2022. During my first visit, I was accompanied by senior and junior researchers from FLACSO Ecuador, local institution affiliated with SUSTENTO. On the second visit, a gathering of SUSTENTO researchers from Colombia, Cuba, Chile, Ecuador and Canada was organized on site. One year later, in September 2023, I visited *La Requilina*, in Bogotá, with researchers from SUSTENTO and Universidad Pontificia Javeriana – affiliated local university.

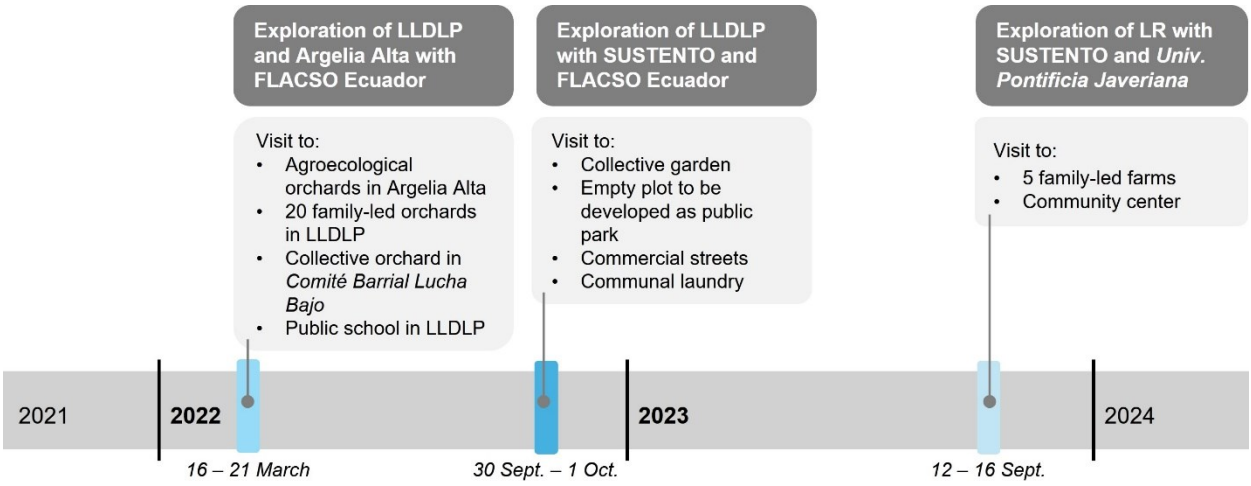

Figure 1 – Timeline of case explorations

Site selection

While my primary objective was to explore various agriculture and gardening interventions in both sites, I also gained insights into broader bottom-up interventions, the forces that drive them, and the challenges faced by LLLDP and *La Requilina* communities. Despite the historical, sociocultural, environmental, and political affinities between the two territories, which are capitals

of neighboring countries, there appeared to be substantial discrepancy in their practices of urban agriculture. A more thorough research effort was deemed necessary to investigate the aspirations, benefits, challenges, and barriers associated with these practices in both settlements. In addition, LLDLP exhibited, at first glance, characteristics of urban development that are particularly pertinent to the exploration of planning ideas and practices that interested me.

LLDLP neighborhood general urban characteristics include high population density, deficit in infrastructure and public spaces, and an often unstable economic and political context. These conditions pose considerable challenges to urban planners, decision-makers and community leaders.

Multi-Scalar characteristics and developments

To better understand the complex dynamics that characterize urban agriculture practices in the low-income, informal neighborhood of LLDLP, in this section I examine broad urban, socio-demographic, economic, criminal, and political forces originating at the national and municipal levels. The intention is not to present an exhaustive or fully representative sample, but rather to examine important developments in key categories, from general subjects to specifics.

Republic of Ecuador

The territory known as Ecuador, has undergone significant transformations shaped by the diverse cultures and societies that have inhabited it throughout history. To contextualize the establishment and evolution of the low-income and informal neighborhood of LLDLP in Quito, I will focus on developments during the Republican period, which began in 1830 (MacLeod *et al.*, 2025). These elements reflect broader national processes of urbanization, inequality, migration, and poverty – critical dynamics for understanding architectural and urban interventions by low-income and informal communities.

Though relatively small in both territory and population compared to other South American countries[6], Ecuador presents complex and dynamic developments. It ranks as the ninth largest and seventh most populous country in South America, resulting in the highest population density in the region – approximately 66 inhabitants per square kilometer (World Population Review, 2025). In 2022, the country had an estimated population of 16.9 million residing within 256,850 square kilometers (Instituto Nacional de Estadística y Censos, 2022b; MacLeod *et al.*, 2025).

[6] See Annex 1. Geographical Map of Ecuador.

Internationally, Ecuador is recognized for its exceptional biodiversity and colonial heritage (MacLeod *et al.*, 2025; United Nations Educational Scientific and Cultural Organization, s. d.). The capital city, Quito – founded by Spanish colonizers in 1534 over Incan ruins – is one of the oldest cities in South America and was the first in the world to be designated a UNESCO World Heritage Site in 1978 (UNESCO, s. d.). As noted by MacLeod *et al.* (2025), "Ecuador's major resource is its soil", which, along with its four diverse ecosystems, supports a wide range of agricultural activities – a cornerstone of the national economy.

Severe economic and Migration crises: 1998 to 2002

Between 1997 and 1999, Ecuadorians experienced a severe financial crisis driven by internal mismanagement and external economic shocks (Banco Central del Ecuador, 2000). This crisis – popularly referred to as "*el feriado bancario*", led to hyperinflation, widespread unemployment, and the collapse of the banking sector. These events triggered "the largest emigration wave in Ecuador's history", particularly among low-skilled and unemployed workers. Jácome H. (2004, p. 5) estimated that between 300,000 to 500,000 Ecuadorians emigrated from 1998 to 2002 to North America and Europe. Some residents from LLDLP were part in this emigration movement, impacting the neighborhood's demographic, economic, and spatial development (male resident and founding member, interview, March 2022).

Covid crisis and Transnational crime organizations: 2020 to 2025

Since 2020, Ecuadorians have faced rising insecurity and violent crime, exacerbated by the economic fallout of the COVID-19 pandemic, and the growing presence of transnational drug cartels (United Nations High Commissioner for Refugees, 2025; United Nations World Food Programme & Food and Agriculture Organization of the United Nations, 2022; United States of America Department of State, 2024). According to Arévalo Ávila *et al.* (2021), Ecuadorians were among the most economically affected in Latin America despite the government implemented emergency humanitarian and economic measures (Asamblea Nacional de Ecuador, 2020; Food First Information and Action Network Ecuador *et al.*, 2020).

In terms of crime, in 2023 Ecuador was considered the most violent country in South America (United Nations World Food Programme, 2025). Several states of emergency were declared, involving the deployment of "security forces and enforcing curfews" (WFP, 2025). According to the US State Department (2024), "crime is a widespread problem in Ecuador (…) murder, assault, kidnapping, and armed robbery (are) prevalent and widespread". While violence is most concentrated in Guayaquil, Quito has also been affected and is included in international security

alerts. Between 2021 and 2022, “crime rates increased by 45.7%”, with 2022 recording “25.32 deaths per 100,000 inhabitants” (UNHCR, 2025). In January 2025 alone, 781 homicides were registered – “the highest on record” – prompting yet another state of emergency (WFP, 2025). The first quarter of 2025 marked the deadliest period in the country's history (Muñoz, 2025).

With respect to immigration, Ecuador hosts “one of the largest refugee populations in the region – mainly from neighboring Colombia – and to the fourth-largest community of Venezuelan refugees and migrants in Latin America” (UNHCR, 2025):

> Deteriorating conditions across the region continues to place Ecuador as […] a major transit country for people from Africa, Asia, Haiti, Cuba, among others, mainly heading north. In view of the worsening situation in Ecuador, these complex mixed movements are joined by thousands of Ecuadorians, with over 350,000 nationals having left the country since 2022 [...] While in the past decade the departure of Ecuadorians was mostly due to economic reasons, violence is increasingly prompting nationals to seek protection abroad.

Agricultural, economic, and political challenges: 2020 to 2025

Despite Ecuador’s well-established “status of major agricultural exporter”, Rodríguez Dueñas (2019, p. 31) posits that this dynamic has contributed to a mindset that perceives food as inherently destined for export, “resulting in a fragile internal food sovereignty”. Efforts have been made in that regard, as evidenced by the enactment of the Food Sovereignty Law in 2009[7] (Asamblea Nacional de Ecuador, 2009, p. 4). This reflected significant advancements in 2020, when Ecuador became nearly “self-sufficient (in) agricultural products” (FIAN Ecuador *et al.*, 2020, p. 30). However, the progress made in this field was severely hindered by the intertwined effects of crime, poverty, unemployment, sociocultural disruption, and public health crises.

Despite post-pandemic recovery attempts, Ecuador’s economy remains structurally vulnerable. The CIA (2025) summarizes it as “highly informal”, a “major banana exporter” presenting “macroeconomic fragility from oil dependency”. In 2023, 52.5% of Ecuadorians were employed in the informal sector (Quito Cómo Vamos, 2024, p. 378), and 2.4 million Ecuadorians were reported to be experiencing food insecurity – more than in neighboring countries such as Bolivia, Peru, and Colombia (WFP, 2023). In that same year, Ecuador’s exports consisted mainly of unprocessed

[7] The Food Sovereignty Law aimed to “stablish the mechanisms by which the State shall (…) guarantee to its people (…) self-sufficiency towards healthy, nutritious and culturally appropriated food, in a permanent way” (Asamblea Nacional del Ecuador, 2009, p. 4).

commodities such as: fish, shellfish, bananas, gold, and crude petroleum (MacLeod *et al.*, 2025). In turn, its imports were mostly processed goods (cars, plastic, packaged medicine, and refined petroleum) (*Ibid.*).

The country's ongoing challenges, including increasing insecurity and persistent political instability (as evidenced by significant national demonstrations known as *Paro Nacional*), are compounded by an influx of international immigrants and refugees, and a renewed wave of emigration (see Figures 2 and 3).

Figure 2 – National Strike in Quito's central area in 2019 (Santillana, 2019)

These developments continue to impact Ecuador's socioeconomic, humanitarian, and political landscape (UNHCR, 2025). These national dynamics, in turn, have a profound impact on the municipal realities of Quito, particularly among its poor and vulnerable inhabitants.

Figure 3 – Protesters protect from tear gas in 2022 National Strike in Quito (RT, 2022)

City of Quito

Quito is the capital of Ecuador in terms of politics, culture, administration, and governance. As one of the oldest cities founded in Latin America – nearly 500 years ago – it is home to the "best-preserved, least altered historic centre in Latin America" (UNESCO, s. d.). Quito became the capital of the Republic in 1829, following Ecuador's independence in 1822.

Situated at an altitude between 2,818 and 2,850 meters above sea level, Quito is the second-highest capital city in the world (see Figure 4). Its climate and urban development have been shaped by the surrounding Andes Mountains and volcanic topography (*Ibid.*). The city extends along a narrow north-south corridor (Figure 5), approximately 80 kilometers in length and 5 kilometers in width (Ríos-Mantilla, 2022, p. 1018). It covers an urban area of about 423 square kilometers, with a consolidated urban and rural area totaling 561.2 square kilometers (Secretaría de Hábitat y Ordenamiento Territorial, 2024).

Socio-demographic shifts

As of 2022, Quito had an estimated population of 2,679,722 (Instituto Nacional de Estadística y Censos, 2022a; Quito Cómo Vamos, 2024). The city's demographic profile has undergone significant changes in recent decades. In 2022, its population growth rate (1.45%) surpassed the national average (1.32%), and its average population density rose to 6.4 inhabitants per hectare (Quito Cómo Vamos, 2024). However, the proportion of urban residents declined from 75.9% in 2001 to 65.8% in 2022, indicating a shift toward settlement in peri-urban and rural *parroquias*.

Figure 4 – Quito view from the sky (Anhalzer, 2020)

The population is also aging: the average age increased from 28 years in 2001 to 34 years in 2022 (Quito Cómo Vamos, 2024, p. 23). Women continue to slightly outnumber men, a trend that has remained stable (*Ibid.*, p. 21). Migration remains a key factor shaping Quito's demographic landscape. As of 2022, 26.1% of residents were internal migrants and 4.3% were international migrants, meaning that approximately 70% of the population was born locally (*Ibid*., p. 38). Finally, ethnic self-identification has also evolved. Compared to the 2001 census, a growing majority of residents now identify as *mestizo*[8] (88.5%), followed by autochthonous (*indígena*: 4.7%), white (3.1%), Afro-Ecuadorian (2.9%), *Montubio*[9] (0.7%), and other (0.1%) (*Ibid.*, pp. 29-30).

All these recent data suggest three key dynamics: (a) increasing population density in peri-urban and rural districts, (b) Quito's continual role as a hub for internal and international migration, (c) evolving perceptions of cultural identity and urban belonging. In this vein, Salman and Kingman (1999, p. 10) address the specificities and challenges of urban culture and popular culture processes in the context of Andean cities. They refer to these territories as constituting a refuge for "diverse cultural forms arising from *mestizaje"*. "These different cultures do not operate in separate worlds, they belong to a complex grid of relations" (Kingman Garcés *et al.*, 1992 in Salman & Kingman, 1999, p. 10).

[8] The term M*estizo* refers to someone "born of a father and mother of different race, especially a white man and an indigenous woman, or an indigenous man and a white woman" (Real Academia Española, 2014).
[9] In Ecuador, the term *Montubio* describes a "mestizo farmer residing in the Coastal areas" (*Ibid.*).

Poverty, inequality, and crime

Recent developments in Quito reveal the broader national climate of insecurity and socioeconomic instability. In 2023, both the urban area and the Municipal District recorded the highest unemployment rates in the country – 8.3% and 7.7%, respectively (Quito Cómo Vamos, 2024, pp. 70, 357). That same year, Quito was the site of the assassination of a presidential candidate days before the national election (Murphy, 2024), and street crime was reported as "widespread" (United States of America Overseas Security Advisory Council, 2025).

Despite these multi-dimensional challenges, residents of Quito are experiencing a slight improvement in the poverty rate. However, this is accompanied by a growing reliance on informal employment: in 2023, 27.4% of urban residents were employed in the informal sector, up from 20.7% in 2019 (Quito Cómo Vamos, 2024, pp. 64, 378). Yet, structural inequalities remain deeply entrenched. Indigenous inhabitants experience the highest poverty rates, women earn less and are less active in the workforce, and rural districts are poorer than urban ones (*Ibid.*, pp. 64, 369).

In the Municipal District, gender disparities are particularly pronounced and ongoing[10]. Women are more likely to be unemployed or inactive, earn lower incomes, migrate, have less access to adequate jobs and to important roles (Instituto de Investigaciones de la Ciudad, 2025; Quito Cómo Vamos, 2024, pp. 357-377). In the first quarter of 2025, the average monthly income in Quito was $793.50 USD – $853.4 for men and $720.7 for women (Instituto de Investigaciones de la Ciudad, 2025).

Quito's urban expansion, low-income and informal settlements

Quito's urban expansion has been affected by geographic constraints, natural hazards, demographic pressures, political agendas, and socio-economic inequalities (see Figure 5 and Annex 2).

The Metropolitan District of Quito (DMQ) reunites 32 urban and 33 rural districts or *parroquias* (Figure 6), and is divided into nine administrative zones (Gobierno de Quito, 2024). In 2022, it was estimated that DMQ comprised approximately 2,200 neighborhoods – some official and others in the process of officialization (Ríos-Mantilla, 2022, p. 1018). The city's linear and low-density sprawl, as well as rapid urbanization and population growth – among other circumstances – have

[10] *Cf.* Revelo *et al.*, 2025.

contributed to socio-spatial fragmentation and inequality, as well as uneven infrastructure development[11].

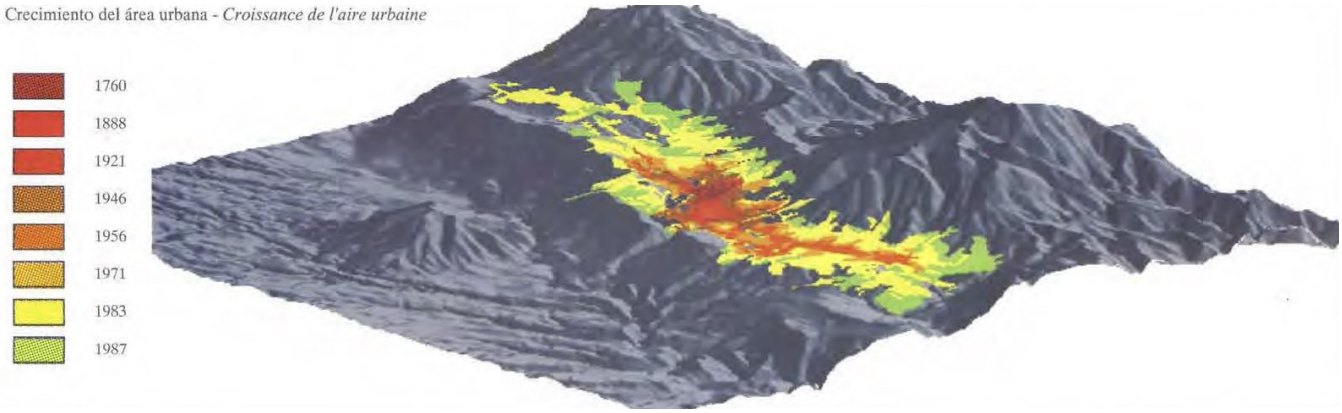

Figure 5 – Urban expansion of Quito (1760-1987), Instituto Geográfico Militar (1992, p. 37)

Informal settlements have historically proliferated in Quito's peripheral areas where planning is limited and access to basic services such as water, sanitation, and transportation is often lacking. These areas frequently lack legal land tenure, and are more vulnerable to important environmental risks, including landslides, earthquakes, fires, volcanic eruptions, ash fall, and floods (Gobierno de Quito, 2024, p. 28). In this context, neighborhoods of informal origin – like LLDLP, exemplify the challenges and contradictions of Quito's urban development, particularly in terms of accessibility, habitability, and affordability. In 2023, 577 settlements in DMQ were in process of or awaiting regularization. Of these, 58% were in northern urban *parroquias*, and 72% of all urban and rural districts had at least one settlement in this condition (Quito Cómo Vamos, 2024, p. 118).

The deteriorating housing conditions further illustrate the city's challenges. In 2023, over 29,000 households in DMQ were living in overcrowded conditions, and that 1 in 10 households in Quito was located in a high-risk area (Quito Cómo Vamos, 2024, p. 87). Additionally, 33.7% of DMQ residents were tenants, many of whom faced rising rental prices. Despite a documented need for 30,435 social housing units, only 144 were built in 2023 (Quito Cómo Vamos, 2024, pp. 87-88).

[11] *Cf.* Secretaría de Hábitat y Ordenamiento Territorial, 2024.

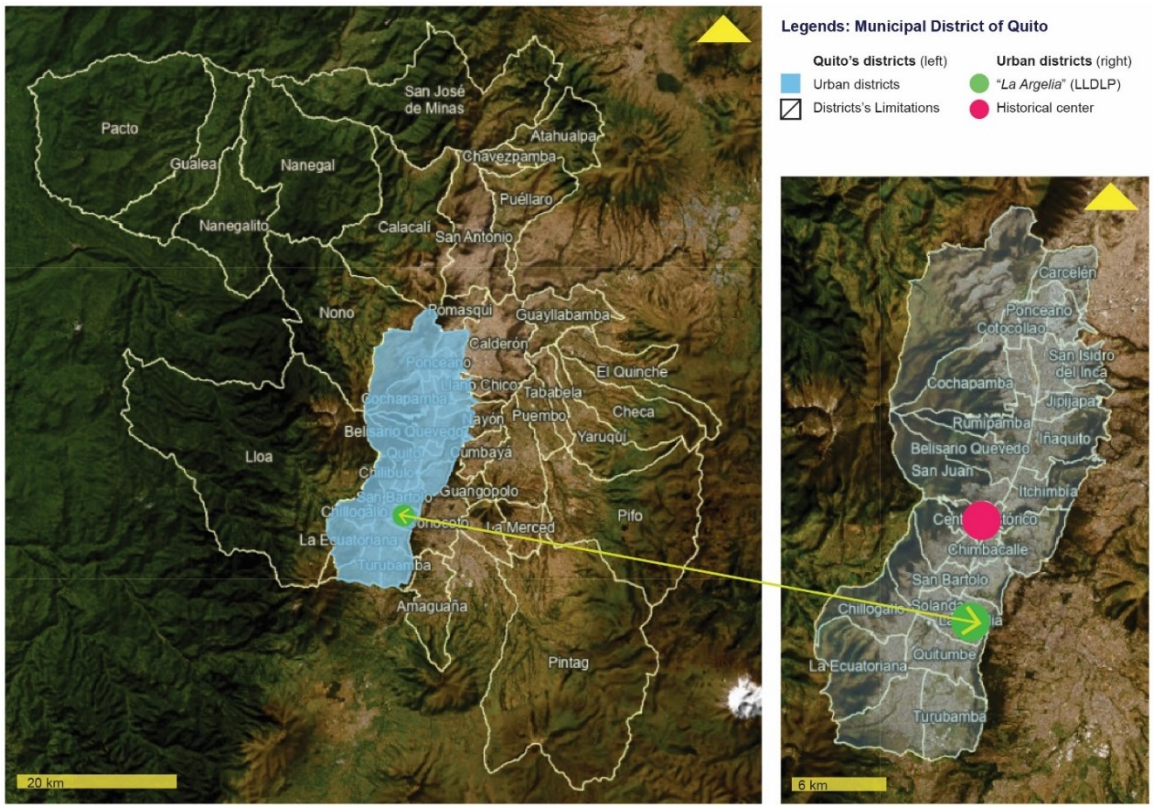

Figure 6 – Location of two urban districts: historical center and *La Argelia* (LLDLP). Obtained from Secretaría de Hábitat y Ordenamiento Territorial (2023) and adapted by author in 2025

Municipal authorities are advancing regulatory frameworks aimed at improving social housing and informal settlements conditions, while promoting more sustainable and equitable urban and rural development (Municipio del Distrito Metropolitano de Quito, 2021; Quito Cómo Vamos, 2024, p. 86). In 2024, the following problems were identified as requiring more attention and allocation of resources by municipal authorities: “basic and social services, welfare, mobility, productivity, innovation, environment, risks and safety” (Secretaría General de Planificación, 2024, p. ix). The scale of these challenges remains significant – particularly regarding low-income and informal settlements, where residents continuously navigate the tensions between inequality, exclusion, and uncertainty.

Neighborhood of LLDLP

La lucha de los pobres (LLDLP) is a low-income, informal-origin neighborhood located in the south of Quito, in an area where rural and urban boundaries intersected during the 1980s. Its name “the

struggle of the poor", encapsulates both its origins and the ongoing socio-political conditions as well as the "everyday resistance practices" that shape its development (Burgwal, 1999, p. 169).

Since its emergence, LLDLP has spiked interest in researchers from different disciplines and origins. Authors such as Salman and Kingman (1999) have gathered writings on social movements, identity, urban and popular culture in the context of Latin American Andean cities, particularly Quito. From a historical and contemporary perspective, their book focus on the "interconnected relations between change processes, adaptation, and cultural resistance" (*Ibid.*, p. 9). In that vein, Burgwal (1999 in Salman & Kingman, 1999) researched the internal dynamics of LLDLP foundation, aiming to better understand contemporary social movements and organizations in urban contexts. He established that social movements comprise both "political struggles around power mechanisms, and cultural struggles in the search of different identities" (Salman & Kingman, 1999, p. 165). According to the author, these urban movements struggle "equally and indissociably" for "material conditions" and the "meaning of everyday life" (*Ibid.*, p. 166).

General characteristics

LLDLP falls within the *Eloy Alfaro* zonal administration, and in the urban district of *La Argelia*, which has a population of 60,000 residents (Quito Informa, 2024; Secretaría General de Planificación, 2024, p. 12). LLDLP is situated at a higher and colder elevation than other sectors of Quito (Ríos-Mantilla, 2022, p. 1018).

Described as "surrounded by geographical features and avenues that divide and isolate it from the city", the neighborhood spans approximately 137 hectares and is home to an estimated 32,000 to 36,000 residents – resulting in a density of 234 to 263 inhabitants per hectare (Anangonó Espinosa, 2022; Ríos-Mantilla, 2022). The neighborhood is split in two by *av. Morán Valverde* (see Figure 7), resulting in a high and low sector: LLDLP *sector alto* or *La lucha A* (towards East), and LLDLP *sector bajo* or *La lucha B* (towards West).

LLDLP comprises approximately 3,860 plots[12] of 180 square meters, each housing around 10 people (Burgwal, 1999; Quito Informa, 2022b). Internal governance is organized in block-level (Burgwal, 1999, p. 168). However, through my interviews, I learned that residents consider it to be divided into 3 areas, by adding *La lucha medio* (sector in-between high and low terrain). However, I will remain to refer to the settlement according to the two main sectors (high and low).

[12] See Annex 3. LLDLP Population Density and Land Appraisal.

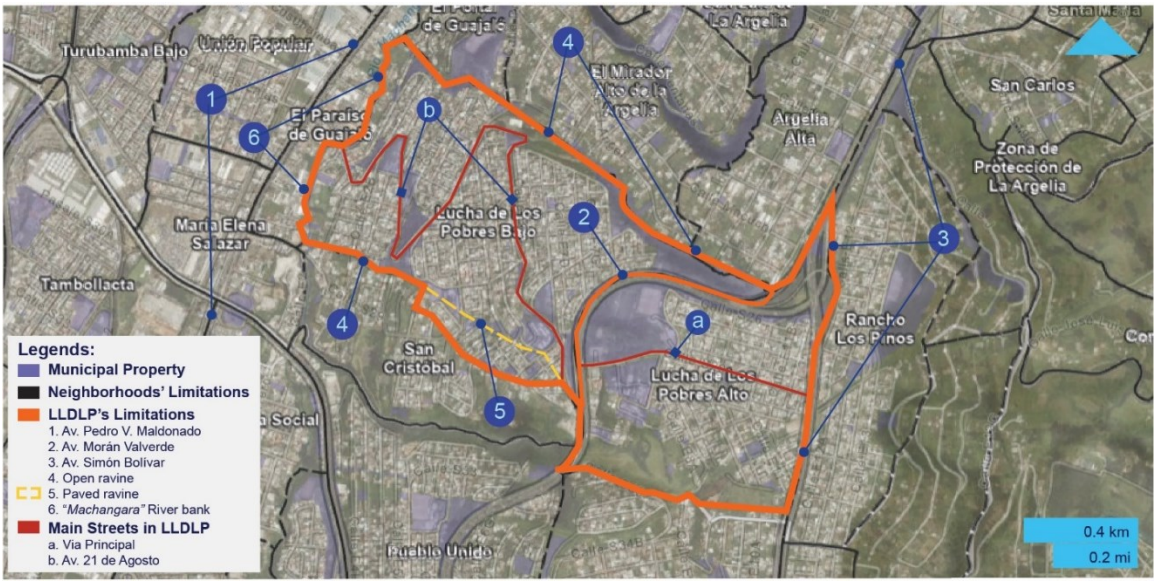

Figure 7 – Physical limits and subdivisions of LLDLP settlement.Obtained from Secretaría de Hábitat y Ordenamiento Territorial (2025) and adapted by the author in 2025

Foundation and development

The land that would become LLDLP was formerly part of *Hacienda Santa Ana*, owned by Argenta Penaherrera Perkins, a close relative of Ecuador's Vice President (Anangonó Espinosa, 2022, p. 65). Although residents commemorate the neighborhood's foundation on August 21st, 1983 (Quito Informa, 2022a), this date marks the establishment of the *Cooperativa Lucha de los pobres*. LLDLP is the only settlement in southern Quito which was developed through land occupation (Quito Informa, 2022b). According to Burgwal (1999, p. 167), this endeavor was supported by two left-wing political parties: *Socialista Central Ecuatoriana de Organizaciones Clasistas* (CEDOC), and *Partido Socialista Popular* (PSP). A local university – *Universidad Central* – also provided its support (male leader interviewed in September 2022).

The cooperative initially included 2,000 members (*socios*), approximately 85% of whom were rural migrants – among which, 30% were original from *Loja*, a drought-affected agricultural region in Southern Ecuador. One-third of the members were construction workers, another third worked in the informal sector, and the remaining third were primarily unemployed women. Most of the Cooperative's members had indigenous ancestry. In 1990, 20% of residents had no formal education, and 60% had only completed primary school (Burgwal, 1999, p. 168). Founding members of LLDLP had as primary goal to secure affordable housing, as most of them were renting substandard, overcrowded rooms in the central areas of Quito, where land tenure was not

affordable for them (*Ibid.*, pp. 168-169). Tenants living conditions were described as “miserable” and “undignified” (Burgwal, 1999, p. 169).

LLDLP emerged through grassroots self-organization[13], land occupation, political mobilization, legal actions, and collective indigenous practices such as *mingas* (communal work) and *guardias* (community patrols) (Anangonó Espinosa, 2022, p. 65). In the 1980s, the cooperative members hired Alberto Veintemillas – a civil engineer responsible for the urban planning of LLDLP (male leader interviewed in September 2022). Due to the characteristics of the settlement, including its proximity to major roads and ravines, as well as its challenging topography, the LLDLP plan presents several urban issues (see Figures 8 and 9). For instance: limited urban spaces constraining physical expansion, high land occupation density, narrow sidewalks, physically isolated by its borders, and inadequate road infrastructure limiting public bus service (Ríos-Mantilla, 2022). This urbanization process is still visible in the neighborhood’s “irregular urban fabric (…) with some unfinished buildings between 2 and 3 stories high” (Ríos-Mantilla, 2022, pp. 1018-1019).

At its anniversary celebration in 2022, the mayor of Quito, Santiago Guarderas Izquierdo, attended as a special invitee. He praised the effort made by the neighborhood’s founders, which resulted in its integration into the city (Quito Informa, 2022a). His remarks, while celebratory, reflect a romantic interpretation of the intricacies and risks underlying the development of this neighborhood:

> 39 years ago, a group of women and men – dreamers – began to settle in this beloved area in the south of Quito. Today, through their effort, hard work and unity, they have established this thriving neighborhood, which continues to consolidate itself, and to which my administration has extended its support (Quito Informa, 2022a).

Lastly, in 2024, LLDLP (and nine other neighborhoods) were identified as having high population density with significant deficits in public spaces, recreational and cultural infrastructure (Secretaría General de Planificación, 2024).

[13] *Cf.* Documentaries by Vanegas (2023), and Sandoval Quishpe (2011).

Figure 8 – LLDLP urban configuration and public spaces. 1) Crosswalk on av. *21 de Agosto*. 2) *Ecuavóley* and soccer field. 3) Public school (white prefabricated units). 4) Vacant Plot

Synthesis of internal and external factors

This historical and contextual analysis offers insight into the key internal and external factors that have shaped both the establishment and the everyday life of founding members and residents of LLDLP neighborhood. External challenges and recent developments include, but are not limited to significant waves of immigration and emigration, the collapse of Ecuador's national financial system, the economic fallout from the COVID-19 pandemic, the activities of international crime organizations affecting politics and administration, and agricultural risks and opportunities related to global trade dynamics.

With respect to internal factors, the most salient to this research are Quito's documented structural inequalities and rising levels of violence. Regarding LLDLP, key considerations include its distant

location from the city center, physical isolation from surrounding neighborhoods, dense urban fabric, varied topographic conditions, gender disparities and the aging of its founding members. In this vein, a male founding member repeatedly expressed concern about the lack of young leadership within the community.

When analyzing LLDLP's ongoing efforts to improve its urban and sociocultural conditions, it is essential to account for the influence of these internal and external dynamics. These elements shape not only the neighborhood's multi-dimensional evolution, but also its engagement with urban planning interventions and policy.

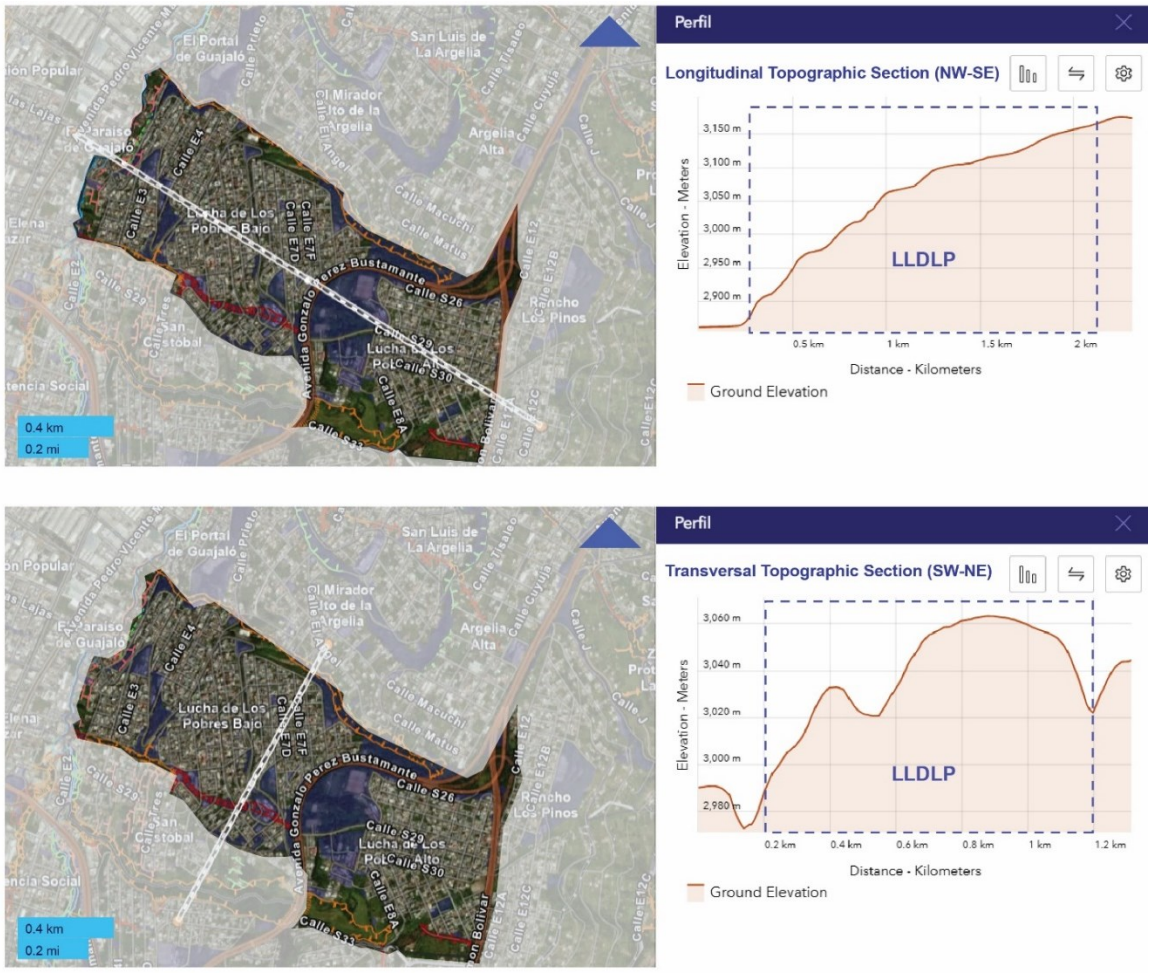

Figure 9 – Topographic profiles of LLDLP.Obtained from Secretaría de Hábitat y Ordenamiento Territorial (2025) and adapted by the author in 2025

Chapter 5 – Context of urban agriculture in Quito

It has been estimated that between 85 and 95% of the food consumed in Quito originates from other regions of the country or is imported (C40 Cities Climate Leadership Group, 2018; Rodríguez Dueñas, 2019, p. 31). This remark about food sovereignty aligns with the previously mentioned perspective that Ecuadorian agricultural products are predominantly regarded as export goods. This phenomenon reveals the prevalence of long food supply chains, which, as asserted by the C40 Cities Climate Leadership Group (2018), constitute "40 percent of Quito's ecological footprint". Moreover, it was documented that 3.6% of Quito's population experience extreme hunger, while 30% experience moderate hunger (Estrella, 2025). This percentage is further elevated to residents in the northern and southern districts: 34% (*Ibid.*).

In response, the city has set an objective of producing 30 to 40% of its food locally, particularly in its rural areas (C40 Cities Climate Leadership Group, 2018; Rosenzweig *et al.*, 2018, p. 34). Nevertheless, as Rodríguez Dueñas (2019, p. 31) points out, at the national level "very little consideration is paid to small farmers within urban centers who feed its inhabitants".

Institutionalization of Urban agriculture: AGRUPAR

Amid the national economic crisis of the late 1990s, a growing number of families residing in informal and low-income settlements engaged in urban agriculture practices, seeking to feed themselves. In 2000, the international seminar "Urban Agriculture in Cities of the 21st Century" was held in Quito, culminating in the formulation of the "Quito's Declaration". In this document, the participating cities committed to the active promotion of urban agriculture practices. On the same year, the municipality convened an Urban Consultation to establish the foundation for the institutionalization of a municipal urban agriculture project. Consequently, in 2002, the "Participatory Urban Agriculture Project" (AGRUPAR[14]) was formally established, initially overseen by the Department of Sustainable Human Development (Rodríguez Dueñas, 2019, p. 27).

AGRUPAR is a participatory program that is open to all residents of Quito, recognizing that the city's societal needs are multifaceted. However, it places a particular emphasis on supporting the most vulnerable segments of the population in terms of social, economic, and migratory issues.

[14] The acronym AGRUPAR also functions as a verb, meaning to reunite, congregate, join together, group together, etc. in Spanish.

These categories include women-led households, individuals in rehabilitation, the unemployed, indigenous individuals, the elderly, migrants, and disabled individuals (Ayala, 2024; Rodríguez Dueñas, 2019).

As of 2005, AGRUPAR came under the administration of ConQuito, a private non-profit local agency for economic promotion (Proyecto de Agricultura Urbana Participativa, 2024; Rodríguez Dueñas, 2019). According to Rodríguez Dueñas (2019, p. 27), in 2010, AGRUPAR was formally acknowledged as an autonomous organizational structure within ConQuito. In 2018, the Quito Food Pact was formed as a "multi-stakeholder platform" with a focus on the local food system. The primary objective of the Pact is to create "effective and coordinated food policy for the first time" in Quito. While integrated within the municipal system, AGRUPAR has also established partnerships and alliances with local, regional and international agencies, municipalities, community associations, and private enterprises to address sustainable food systems. For instance: Milan Urban Food Pact, the 100 Resilient Cities network, the Cities Climate Leadership Group (C40), the International Council for Local Environmental Initiatives (ICLEI), and the CITYFOOD (*Ibid.*, p. 28).

According to Rodríguez Dueñas (2019, p. 31), who served as the project manager for AGRUPAR's from 2005 to 2019, Quito had achieved a status of "country and region-wide model in which food sovereignty is implemented at the smallest scale". In 2019, urban agriculture interventions coordinated with AGRUPAR were present in 94% of the totality of urban and rural districts of Quito. A total of 4,400 gardens encompass an area of approximately 40 hectares within DMQ. However, this was prior to the pandemic and the ongoing political, economic and crime crises.

AGRUPAR model: impacts and results

Rodríguez Dueñas (2019, pp. 29-30) reported that the project yielded several positive results and socio-economic impacts, including the creation of 340 jobs and the formation of 180 small enterprises in 2019. These enterprises had a direct impact on 74,000 individuals, with an additional 100,000 individuals being indirectly impacted. The latter refers to the 'responsible consumers' who purchase certified organic produce offered weekly or biweekly in organic farmers markets or *bioferias* organized by AGRUPAR. A total of 6,500 *bioferias* have been held in various neighborhoods in Quito, offering a wide array of organic produce. A compendium of 72 edible species of plants and 105 types of organic food are offered in these activities[15]. In 2019, it was

[15] *Cf.* Ayala Sarmiento (2024, p. 14-15) to see a non-exhaustive list of the produce in urban agriculture orchards affiliated to AGRUPAR.

estimated that 350,000 USD were generated through bioferias. Moreover, in collaborative efforts with urban farmers, over 2,000 production structures (greenhouses) were constructed. In terms of the provision of capacitation and support, by 2019, the Participatory Urban Agriculture Project, had provided its expertise and services to 21,000 farmers, 86% of whom were female.

According to Pablo Garófalo – current project manager of AGRUPAR – in 2024, a minimum of 4,500 urban farmers were engaged in 2,300 urban agriculture activities affiliated with AGRUPAR (Ayala, 2024, p. 14). However, this amount has continued to decrease since the pandemic, indicating a persistent trend. In 2025, the number of active gardens was reported to be 2,200 (Estrella, 2025). The majority of the program's participants continue to be female, which constitutes a consistent demographic prior to the pandemics. A total of 57% of the harvested produce is intended for self-consumption, while 43% is designated for marketing (Ayala, 2024, p. 14), a figure that has remained relatively consistent since the "roughly" 50% of surplus reported by Rodríguez Dueñas (2019, p. 29). Furthermore, 19 marketing locations have been established throughout the city, anticipating that the revenue for 2024 will amount to 300,000 USD (Ayala, 2024, p. 15).

In terms of nutrition and healthy eating habits, urban farmers have enriched the repertoire of vegetables they consume, from 8 types of vegetables in 2003, to 50 types in 2024 (Ayala, 2024, p. 16).

The institutionalization of urban agriculture in Quito through the Participatory Urban Agriculture Project encounters significant challenges posed by multidimensional national crises, municipal budget reductions, and public policies (e.g. land restrictions). Nevertheless, it is regarded internationally as a noteworthy model of sustainable food systems, land utilization, economic opportunities, and enhancing accessibility to nutritious food for vulnerable city dwellers.

AGRUPAR model and Quito's public policies

The initiative operates in public and private spaces, and occasionally in vacant or formerly abandoned plots that they rehabilitate for productivity (Rodríguez Dueñas, 2019, p. 30). AGRUPAR has actively collaborated with different municipal departments to formulate at least four public policies that incorporate urban agriculture. They include the Ordinances of Climate Action Plan, Resilience Strategy, Social Responsibility, and Waste Management (*Ibid.*, p. 30).

Nonetheless, two substantial legislative limitations pertaining to the land size and ownership limit AGRUPAR's scope of action. First, individuals interested in participating in the program are

required to provide a space for cultivation, ranging from pots to a plot with an area less than 7,500 square meters. If the land is of a greater size and is utilized for agricultural purposes, it is designated as a farm and consequently falls under the purview of the provincial and national government (Rodríguez Dueñas, 2019, pp. 29-31). Consequently, the land falls outside the operational area of AGRUPAR. Secondly, if the land is public and the participants engage in the sale of their certified organic overproduction – a common practice – they are required to pay a fee that is "inaccessible" to the most vulnerable participants (USD 500 per month) (*Ibid.*, p. 31). Furthermore, the right to utilize public space for farming purposes, is exclusively reserved for legally constituted farmers' associations, a limitation that stands in stark contrast to the predominantly informal nature of urban agriculture practices "mostly used by communities who will unlikely form a legal entity" (*Ibid.*, p. 31). As would be expected, these factors – among others – contribute to the finding that "only 30% of AGRUPAR's gardens are located in municipal spaces", given that approximately half of the certified organic produce is marketed in organic farmers markets (*bioferias*) (Rodríguez Dueñas, 2019, p. 31).

Ordinance for Healthy Food Neighborhoods

Former AGRUPAR project manager Rodríguez Dueñas (2019, p. 31), has advocated for a modification of the "city's restrictive land legislation" with respect to the practice of urban agriculture. This modification has the potential to contribute to "subsistence entrepreneurship" and "employment creation" through the exploitation of various vacant public spaces mapped by AGRUPAR. A notable development on this subject occurred very recently, as the municipality approved the Ordinance for Healthy Food Neighborhoods on April 29, 2025 (Cáceres, 2025; Estrella, 2025).

In summary, the Ordinance facilitates the utilization of unoccupied public spaces for urban agriculture, thereby (a) enhancing food sovereignty, (b) fostering responsible agricultural practices and food consumption, and (c) engaging vulnerable populations in urban agriculture (Estrella, 2025). Ancestral and regional practices will also be fostered. They include a diverse array of strategies, such as trading (*trueque*), collaborative networks, community kitchens (*ollas comunitarias*), food banks, short food-supply circuits, and the promotion of a circular economy. Additionally, composting programs are integral components of these efforts. This aspect is particularly important, as organic waste constitutes 57% of Quito's landfill (Estrella, 2025). The Ordinance is characterized by two notable aspects: an educational element and a focus on intergenerational transfer (Cáceres, 2025). The primary objective is to exploit these unoccupied

urban spaces to cultivate nutritious food for personal consumption, with the surplus still marketed in *bioferias* organized by AGRUPAR (Cáceres, 2025).

> This initiative will enable the formalization and support of gardens already cultivated by numerous families, especially since the pandemic, when growing food at home became a necessity (Councilwoman Analía Ledesma in Cáceres, 2025).

In addition, the Ordinance stipulates that new housing projects comprising more than 20 dwellings must incorporate spaces for growing food, to be supervised by the Territory Secretary (Cáceres, 2025). This initiative will be followed by the formulation of an Agenda to Foment Healthy Food Neighborhoods within the next 150 days (Estrella, 2025). This document is intended to provide advancement indicators, clear goals, diagnostics, and financial resources to operationalize the Ordinance. The Secretary of Economic Development will oversee the Technical Evaluations, and the Metropolitan Council on Social Responsibility will conduct a yearly follow-up (Estrella, 2025).

"*Huertos agroecológicos Argelia Alta*" (Agroecological orchards Argelia Alta)

In March of 2022, myself, and other researchers, conducted an observational study and semi-structured interviews to three female farmers residing in *Argelia Alta*, a neighboring settlement to LLDLP (see Figure 10). Our questions addressed their organizational structure, types of participants, main benefits and constraints about this agroecological orchard. I interpreted these answers following the theorical analysis framework of my study.

The interviewed women are members of an association of producers operating under the name "*Huertos Agroecológicos Argelia Alta*" (Agroecological orchards Argelia Alta). This micro-entrepreneurship operates on public land, officially granted by the Municipality, in which they have developed farrows, cultivation beds, a compost area, and a green-house structure. The association regularly participates at the *bioferias* organized in other neighborhoods, where they sell their surplus organic produce.

The organization was established in 2006 with partial funding from private company *Fundación Holcim Ecuador*, which was part of a national social responsibility program (Holcim Ecuador S.A., 2013). They have benefited from management training and technical support in developing their agroecological practices from FLACSO, PROBIO, the Agriculture Ministry and Fundación Holcim Ecuador.

An examination of this activity was conducted by Cháves Torres (2014), who studied rural migrant women who practice agroecology in Quito. Her research examined the construction of rural identity in the context of migration to urban settlements, with a particular focus on food sovereignty (Cháves Torres, 2014).

Figure 10 – Association of producers in *Argelia Alta* neighborhood. A) Interviews with farmers at the association headquarters. B) Observation of the harvesting center. C) Observation and interview in the farming fields. D) Interview within production structure

In light of the considerable differences in the urban agricultural practices, entrepreneurial and social dynamics, production volume, and overall problematics that distinguish *Huertos Agroecológicos Argelia Alta* from interventions observed in LLDLP, I determined that this site would not be incorporated in my study of urban agriculture. However, I present key findings that

resonate with the AGRUPAR Model, as well as with the Healthy Food Neighborhood Ordinance in the Chapter dedicated to Discussions.

Chapter 6 – Methodology

In this chapter, I outline the methodological framework that guided my research. As previously delineated, my approach was built from a preliminary context assessment, incorporating practical constraints, such as the project's feasibility within the stipulated timeframe. In addition, I intended to mobilize my own experiences and linguistic competencies – including a high degree of familiarity with the local jargon. It is noteworthy that approximately 45% of the literature review, and 100% of data collected were in Spanish (my native language). The selection of LLDLP as the case study site, is another example of strategy, given the rich documentation and history of urban development at the site. This makes it an ideal settlement and community for exploring the intersections of urban informality and planning.

Research design and epistemological orientation

My dissertation embodies an applied and empirical research project grounded in a qualitative approach. To establish relationships between the components of urban informality and planning, I employ inductive logic and descriptive methodology. I designed this methodological approach to allow a nuanced understanding of the various factors and forces, both internal and external, that pertain to the phenomena under study.

The research epistemology draws from constructivist epistemology and complex thinking principles. Within this study, constructivist epistemology represents a "a theory of knowledge in which knowledge does not reflect an "objective" ontological reality, but exclusively an ordering and organization of a world constituted by our experience" (Glasersfeld, 2008, p. 9). Regarding complex thinking, Morin (2005) describes it as a way of thinking that seeks to grasp the multidimensionality of reality by integrating uncertainty, and incompleteness. Complex thinking emphasizes the interdependence of parts within wholes, and advocates for a systemic, reflexive, and contextual approach to knowledge. The validity of this epistemological framework – which acknowledges the richness of complexity – is supported by numerous authors in the field of planning.

Case study strategy

I decided to implement a representative case study approach which is consistent with both the qualitative inquiry paradigm, and southern planning theories (Watson, 2014; Yin, 2003). This methodological strategy facilitates in-depth, context-rich analysis, which is aligned with the urban

phenomena under investigation. LLDLP constitutes a critical case study, providing a valuable lens through which I examine the interplay among spatial, social, political, and institutional factors that shape urban informality and urban planning in Latin America. The site's history of community organization and its engagement with urban agriculture render it particularly pertinent to the research questions on clashing rationalities and the formal-informal continuum.

Sample population

My study employs an ethnographic perspective, prioritizing the voices of residents, while also incorporating perspectives from key actors, such as local authorities, academics, and researchers. In terms of selection criteria, as I was aiming to capture a great diversity of perspectives, participants were not required to be directly involved in urban agriculture practices. This choice also allowed for a broader understanding of barriers and motivations in these practices, as evidenced in survey respondents.

Selected interventions

I selected three types of urban agriculture interventions in the sector of *La lucha B* for semi-participant observation (see Figure 11). These interventions were suggested by local researchers and community leaders:

- Intervention number 1: family farming fields
- Intervention number 2: collective farming field in communal center (*Comité Barrial Lucha Bajo* managed by a group of elderly residents (*60 y Piquito)*[16]
- Intervention number 3: collective gardening interventions by group *60 y Piquito*

[16] In English: 60 years-old and some more.

Figure 11 – Location of three selected interventions. Obtained from Secretaría de Hábitat y Ordenamiento Territorial (2025) and adapted by the author in 2025

Data collecting methods

To ensure contextual depth and triangulation, I complemented qualitative data collection with selective quantitative analysis. My primary data was gathered during two field visits in 2022, while secondary qualitative data from SUSTENTO junior and senior researchers in the same year enriched my empirical findings. The set of four collection methods is detailed in Table 4.

Table 4

Organization and deployment of data collecting methods

Data Collecting Methods	Indicators in Urban Agriculture Interventions				Collection Conditions	
	Participants	*Conditions and Characteristics*	*Barriers and Constraints*	*Drivers and Benefits*	*Place*	*Period*
Primary Data						
1 Semi-Structured Interviews and **Semi-Participant Observations**	Female farmers of different ages				• **Agroecological orchard** in Argelia Alta neighborhood	March 16th, 2022.
	Female and male residents of different ages				• **20 family orchards** in *La Lucha B* • **Collective orchard** in community center (*Comité barrial LLDLP sector bajo*) • Public school in *La Lucha B*	March 16th and 21st, 2022.
	Female and male residents of different ages				• **Collective gardening intervention** • Unoccupied plot to be developed as public park • Commercial streets in *La Lucha B* • Communal laundry	September 30th and October 1st, 2022.
2 Focus Groups	Female and male residents of all ages				Community center (Comité barrial LLDLP sector bajo)	March 21st, 2022.
Secondary Data						
3 Surveys	Female and male of different ages: • Group 1: Residents				FLACSO junior researchers went door to door in LLDLP neighborhood.	October 31st to December 1st, 2022.
	• Group 2: Local and municipal authorities, officials and decision makers at Quito • Group 3: Academics, researchers and experts in food systems in Ecuador				FLACSO senior researchers contacted representatives of these two groups by email. Survey was filled online by the respondent.	
	Female and male residents from blocks "V" and "W"				FLACSO junior researcher Paola V. Rodríguez Badillo went door to door in the two blocks of *La Lucha B*	September 2022.
4 Literature Review and **Systematic Document Analysis**	N/A				Online sources, through free-access or access granted with student status (Université de Montréal).	All along the research

Semi-structured interviews and Semi-participant observations

I conducted semi-structured interviews during both field visits (March and September 2022), often in conjunction with site walks alongside community leaders, residents, and academics from FLACSO and SUSTENTO. These interviews were informal yet guided by thematic prompts, with notes by hand, and photographs taken to document key places and insights (see Figure 12).

In addition, I conducted semi-participant observations with the assistance of local guides, including urban farmer Margarita Yumbo, and community leader and founding member Rodrigo Guatoluña, respectively in March and September. These sessions involved visits to farming fields and gardens during daylight, offering opportunities to witness agricultural practices and engage with residents

in situ. In September, Guatoluña was joined by other three local leaders, and SUSTENTO researchers from Colombia, Chile, Ecuador, and Cuba also participated.

Focus groups

Two focus groups were held with residents and community leaders, in 2022 (see Figure 12). The March session was co-organized with junior and senior researchers from FLACSO Ecuador, and was held by Paola Rodríguez Badillo and me. These discussions provided collective reflections on urban agriculture practices and neighborhood organization. The session held in September was led by SUSTENTO senior researcher Elsa Monsalve, in which I had a secondary role. On this occasion, the focus groups were intended to address leadership issues and healthy eating habits, since this was requested by the community. Because I considered that it did not provide data aligned with my indicators, I chose not to include it in my analysis.

Surveys

Two surveys were designed and implemented by SUSTENTO researchers:

SUSTENTO Survey (SS)

This survey was created by junior and senior SUSTENTO researchers. I contributed to the refinement of language and terminology[17], before they were approved collectively. This method was deployed in SUSTENTO six sites, resulting in relevant data across Latin America and the Caribbean. Nevertheless, I analyzed only the data pertaining to LLDLP. The SUSTENTO survey targeted three stakeholder groups:

- Group 1: Residents of LLDLP, regardless of participation in urban agriculture
- Group 2: Quito municipal authorities, officials, and decision-makers
- Group 3: Ecuadorian academics and researchers in food systems

[17] The survey was conducted in Spanish. I translated the pertinent information to English for my study.

Figure 12 – Data collection in LLDLP, Sept.-October 2022. 1) Observation and interview in *La lucha B*. 2) and 3) Focus group at *Comité Barrial La lucha sector bajo*. 4) Observation and interview at community laundry area

The survey content and collection were adapted to the types of stakeholders. For instance, the 56 questions addressed to authorities and academics were identical. However, the residents' survey included four additional questions – 60 in total. These questions were related to the neighborhood (neighborhood name, how long respondents had lived there, whether they were considering moving out), and ethnicity (see Annex 6).

Data collection methods varied. For residents, it was conducted by door-to-door visits made by SUSTENTO junior researchers. Authorities and academics received emails from SUSTENTO senior researchers, inviting them to participate by filling in an online form. To participate, all respondents had to consent. In total, 230 responses were collected on the six sites. In LLDLP, 49 participants responded, out of which: 30 were residents, 10 authorities, and 9 academics.

This data served as a foundation for two recently published articles by researchers at SUSTENTO. The first one is entitled "Why do (some) people in informal settlements in Latin America grow food today, and what to make of those reasons" (Lizarralde *et al.*, 2025b) – in which I collaborated. The

second article is entitled “The spaces in between: a network analysis of alternative food systems in Latin America and the Caribbean” (Lizarralde *et al.*, 2025a).

Rodríguez Survey (RS)

The second survey was conducted by SUSTENTO junior researcher Paola V. Rodríguez Badillo. In her master’s thesis[18], she explored the subject of urban agriculture regarding its role in mitigating risks to climate and health vulnerabilities among 90 participants (Rodríguez Badillo, 2025). Her survey was conducted on residents of blocks “V” and “W” in *La lucha B*. The latter is contiguous to intervention 1 (see Figures 11 and 17). One survey was conducted per household, prioritizing the person responsible for food preparation. Given its pertinence, this dataset was also integrated into my analysis.

Rodríguez Badillo (2025) also developed an ethnographic examination, through participant observation. This was conducted in the span of four months in 2022, among six households in this area. 3 households were engaged in urban farming, and 3 households were not.

Literature review and Systematic document analysis

Following recommendations by Bryman (2012) and other authors, I conducted a systematic review of planning documents, public policies, legal frameworks, programs, and institutional reports. In addition, media sources – including newspaper and social media were taken into consideration, given their relevance to community narratives. Visual materials, such as the documentary by Vanegas (2023), provided me with additional context and historical depth. This method was essential to situating and precising chapters such as conceptual framework, field site and Urban agriculture context, as well as methodological design and data analysis.

[18] I translated and interpreted pertinent information in Rodríguez Badillo’s master thesis, which is in Spanish, for my study.

Chapter 7 – Data analysis and Results

To explore the conceptual notions of the formal-informal continuum and the clashing rationalities in planning, I have structured the results in the following five categories: a) participants; b) urban agriculture intervention; c) self-perceived characteristics of food consumption; d) drivers, motivations, benefits, and impacts; and e) barriers and challenges.

My presentation of descriptive statistics for each category will be as follows: initially, I will outline the statistics, and subsequently, elaborate the interpretations in a sub-category entitled “Key take-aways”.

a) Participants

This section describes the first category of results. The data on sample population was collected in 2022, and it combines primary and secondary data. My main results are presented through one of the three methods employed.

Semi-structured interviews

In March of 2022, I interviewed a total of eight residents of LLDLP, and six of them were over 60 years of age. The sample included three males and five females. One female resident is part of the group *60 y Piquito*, and it is my understanding that at least two of them were founding members of the neighborhood. Six of the respondents were engaged in at least one urban agriculture activity.

In September of 2022, I interviewed a total of five individuals. All of them resided in LLDLP, with two of them being female, and three being male. Four of the participants were local leaders, and the fifth individual was an elderly female resident who participated in urban agriculture activities. A minimum of two participants were over 60 years of age.

Therefore, I interviewed a sample of 13 residents of LLDLP, including 6 male and 7 female participants. Seven of them were over 60 years of age, and seven were engaged in at least one urban agriculture intervention. And at least three were founding members – one female and two males.

Focus group

The focus group FLACSO researchers and I held in March 2022, was attended by a total of 13 individuals. All of them were residents of LLDLP. The demographic composition of the sample

included 85% or 11 male individuals below the age of 25. It also included one female who was under 30 years of age, and one male who was over 30 years of age. It was observed that none of the respondents were engaged in urban agriculture practices.

Surveys

A total of 49 individuals participated in the survey conducted by SUSTENTO junior and senior researchers. The demographic composition of the sample is as follows: 61% (or 30 respondents) were residents of LLDLP, 21% or 10 were local authorities, officials, and decision-makers, and 18% or 9 were Ecuadorian academics and researchers (see Annex 7 for additional illustrations). Most of the respondents were female, constituting 30 or 61% of this sample. This observation was also reflected in the composition of the residents' group, which had the highest number of participants.

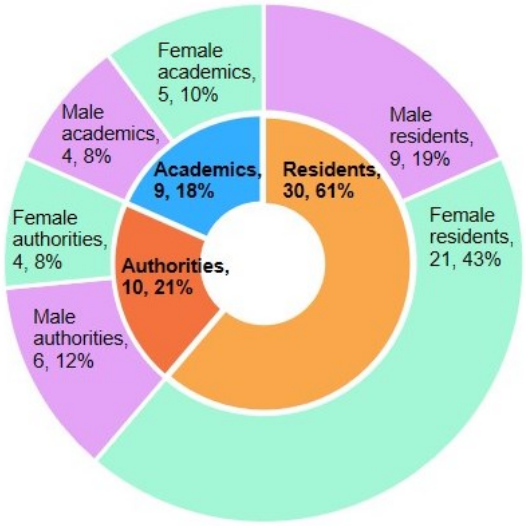

Figure 13 – SUSTENTO survey respondents, by category and gender

Among residents, 21 were female, constituting 70% of the group. Among the total sample, 19 individuals, constituting 39% of the total, were male. The proportionate representation of each gender in each category is illustrated in Figure 13.

Among the group of residents, 90% had been living in LLDLP for at least 5 years, followed by 7% residing in the neighborhood from 3 to 5 years, and only 3% (one participant) was residing for less

than a year (see Figure 14). Most residents intend to continue living in the neighborhood (24 or 80%). Four residents or 13.3% answered “don’t know”, and two residents (6.7%) answered “no”.

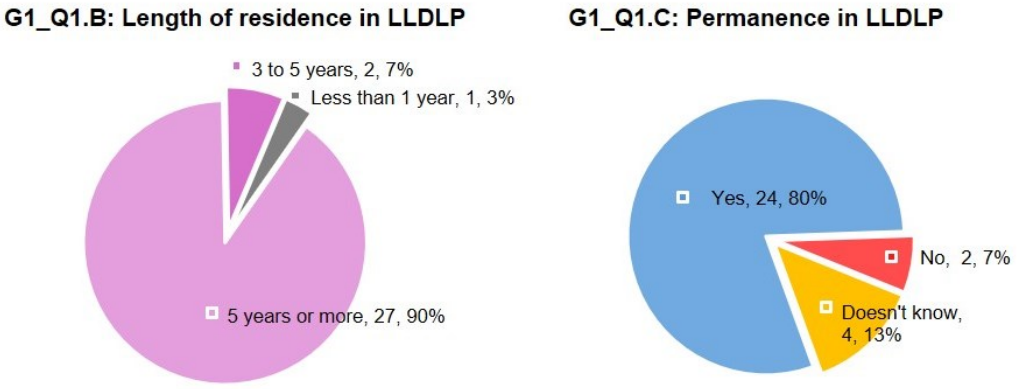

Figure 14 – SUSTENTO survey inquiries about residency in LLDLP (group 1)

In the survey designed and conducted by Rodríguez Badillo (2025), a total of 90 residents from blocks V and W participated. 70% of these respondents were women, and 30% were men. In descending order, 31% were 50 to 59 years of age, 23% were 30 to 39, 18% were 40 to 49, 14% for both categories: 18 to 29 years of age, and older than 65 years of age (Rodríguez Badillo, 2025, p. 76).

Key take-aways

The methods employed in this study enabled the collection of data from a total of 165 respondents for my study, of which 146 were residents (see Figure 15). A total of 13 residents participated in semi-structured interviews, 13 others took part in one focus group, and 139 participated in the two surveys. Of these, 120 were residents of LLDLP. Most of the respondents were female – 101 individuals, constituting 61.2% of the total sample size.

However, one specific condition must be acknowledged: a small proportion of individuals may have engaged in multiple methods of communication. This finding was confirmed for one participant, a male community leader, but it is possible that other cases exist.

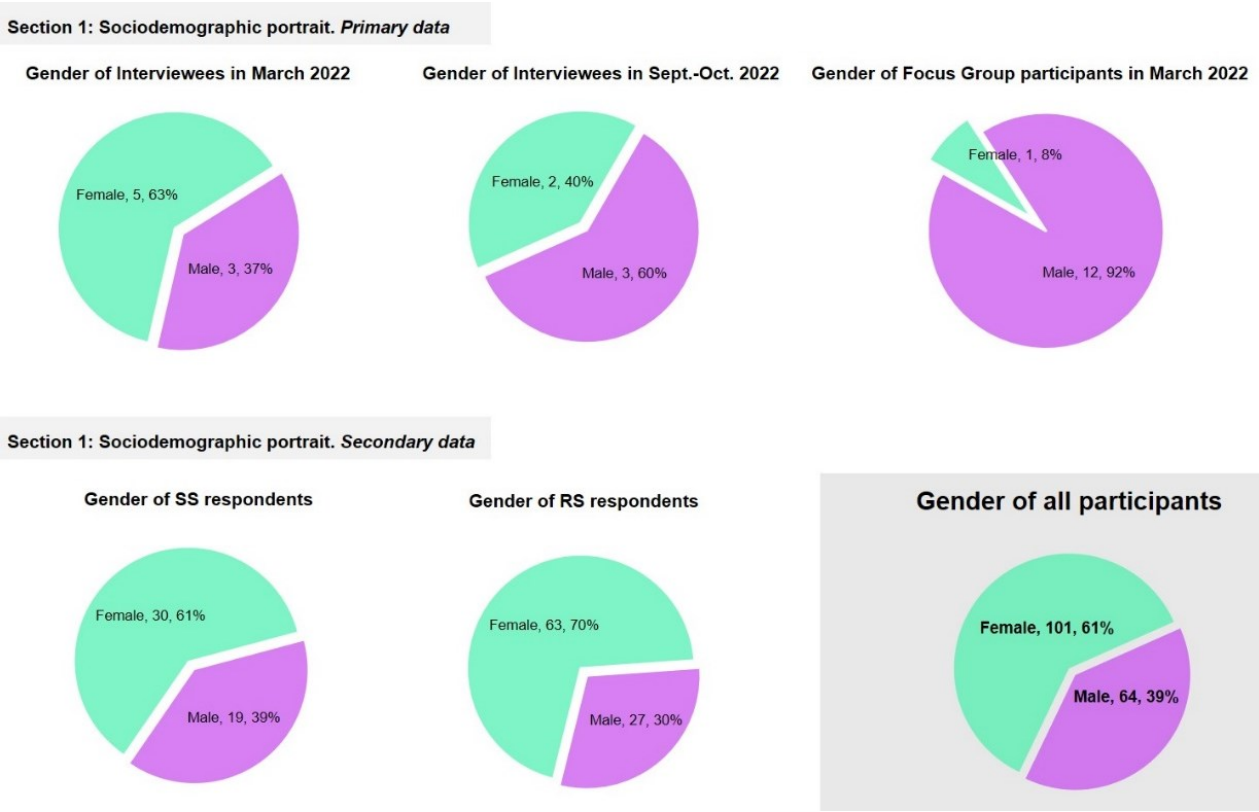

Figure 15 – All respondents to interviews, surveys, and focus group, by gender

b) Three urban agriculture interventions

This section concerns the second category of results. These three interventions offer a diverse range of characteristics (plot size, topographical conditions, field care, quality of enclosure, etc.), which provides a spectrum of organizational models and spatial configurations relevant to this study.

Account of interventions in LLDLP

The objective of my study was not to provide an exhaustive account of the urban agriculture activities and interventions present in the neighborhood. Nevertheless, data extracted from both surveys offer insight into residents' engagement in this activity (see Figure 16). For instance, according to Rodríguez Badillo (2025, p. 96), among the 90 respondents from blocks V and W, a third (33%) are engaged in urban agriculture practices, while 67% are not.

When asked about urban agriculture practices in SUSTENTO Surveys, authorities provided insights concerning low-income neighborhoods in Quito. Conversely, academics addressed this context on a national scale. Group 1 (Residents) addressed the scale of the neighborhood LLDLP.

The survey revealed that among the 30 residents interviewed, 77% confirmed the existence of these practices on LLDLP, while 23% did not confirm it (Figure 16). On a municipal scale, 60% of the 10 local authorities surveyed confirmed the presence of these practices on low-income and informal neighborhoods, followed by 30% who chose “Don’t know”, and 10% who chose a negative answer. Among the group of 9 Ecuadorian academics and researchers, 56% confirmed the existence of these practices in low-income and informal neighborhoods in Ecuador, while 44% responded with a negative answer. In overall, the survey revealed that 69% of respondents confirmed the existence of this practice, 24% did not, and 7% were uncertain (don’t know). Among the three groups of respondents, residents of LLDLP exhibited the most significant discrepancy in their ratings between ‘yes’ and ‘no’, with ‘yes’ being the predominant response. In contrast, academics exhibit the least disparity in ratings between ‘yes’ and ‘no’. The group of local authorities, officials, and decision makers was the only one that selected the ‘don’t know’ option, which corresponds to 7% of all 49 respondents.

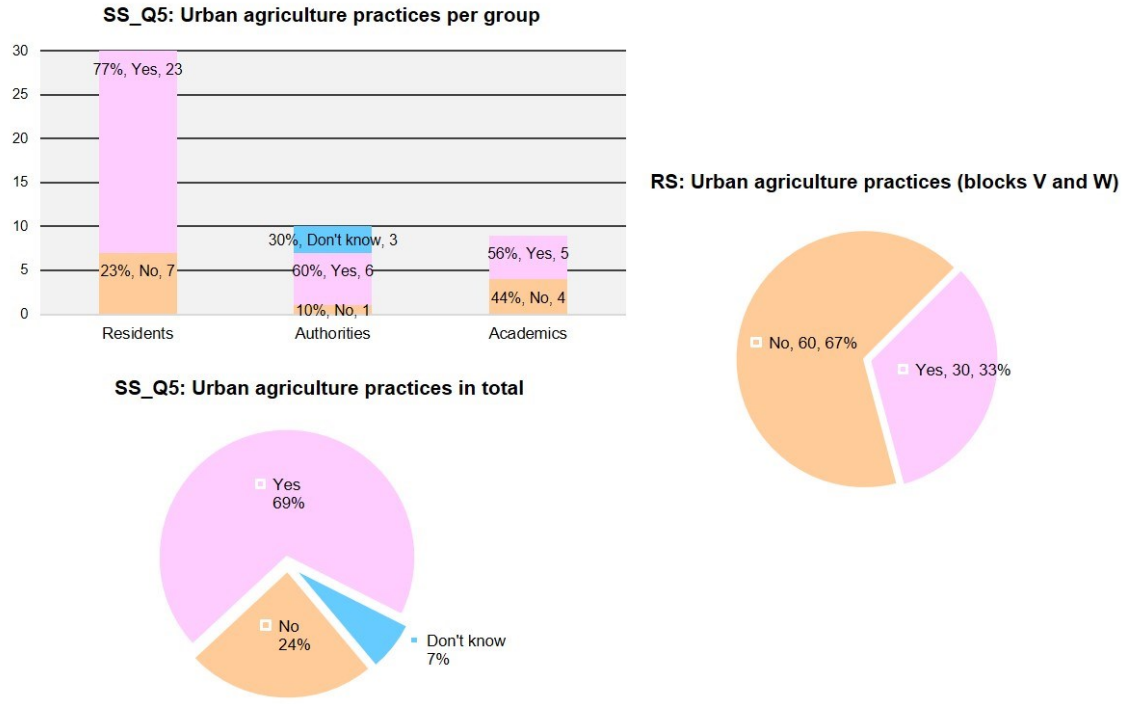

Figure 16 – Urban agriculture in Blocks V and W, LLDLP, and low-income / informal neighborhoods in Quito and Ecuador (SUSTENTO and Rodríguez survey)

Lastly, although I did not include smaller interventions inside the houses in this study, these urban agriculture practices have captured the interest of local organizations and researchers (Cf. Rodríguez Badillo, 2025). They can be found in pots sometimes made with reused materials, often arranged in terrasses, garages, façades, and roofs.

Characteristics and Conditions of three Interventions

The three selected interventions are hereby characterized under seven aspects I explored during semi-participant observation and semi-structured interviews. These characteristics and conditions represent an evolution from my first examination (Gonzales Faria *et al.*, 2022), they comprise: land property, land use, farm type and technique, scale of production and variety of produce, additional uses of the land, since how long they have been practicing urban agriculture, access and enclosures (see Table 5).

Table 5

Conditions and Characteristics in Urban Agriculture Interventions

Urban Agriculture Interventions	**Conditions and Characteristics**						
	1) Land property and Surface	*2) Land use*	*3) Farm typology and Technique*	*4) Scale and Produce*	*5) Other uses*	*6) Duration*	*7) Access and enclosures*
N., Location, Surface							
1 Between *av. 21 de Agosto* and *calle 7*	Municipal land, no recorded registry number for the plot. Approx. 3,388 sq. mt. in surface. Plots 1 to 9 account for 1,300; and plots 10 to 20 for 2,088 sq. mt.	Non-constructible area. Granted by Municipality to households in front of it (*calle 7*). Restricted to urban agriculture practices for domestic use	Family intervention. Traditional soil farming technique (farrows)	Medium or Family-sized production of herbs, fruits, vegetables, and flowers	Some plots have a space for compost and storing farming tools. Plot N.10 is used as a covered garage. Plots N. 18 to 20 are not cultivated	For more than 30 years in 2022	Easy access. Enclosures and plot divisions made with left-over / reused materials: wooden pallets, zinc sheets, barbed wire, car tires, etc.
2 Corner of *av. 21 de Agosto* and *calle E4*	Municipal land, plot N. 351653. Part of a public building: community center (*Comité Barrial LLDLP sector bajo*). About 122 sq. mt. in surface	Residual, small space on an inclined corner, next to a containing wall	Collective elderly intervention. Traditional soil farming technique (farrows). Containing walls made of reused materials: bed frame, zinc sheets, wooden pallets, etc.	Small-scale production of herbs and vegetables	An area on the right (Av. 21 de Agosto) is reserved for storing farming tools	Since before the Covid-19 pandemic	Inside the wall enclosures of the community center. Access through a locked white door made of reused materials
3 *Calle E2* near the corner of *calle Manuela Garaicoa*	Municipal land, plot N. 415067. Interventions on west side sidewalk and on east side slope / retaining wall. About 35 sq. mt. in surface	Isolated, low-traffic street near an open ravine and riverbank. Prone to criminal activities, floods and landslides	Collective elderly intervention. Traditional soil farming technique (farrows)	Ornamental bushes and flowers	These spaces were originally a sidewalk and a retaining wall	Since before the Covid-19 pandemic	Anyone can access them

Among the commonalities and given the urban-spatial constraints of the neighborhood –lack of space and challenging topography, these interventions' characteristics and conditions take strategic forms. They are all situated in public land, however, these are either residual spaces, such as slopes, retaining walls, sidewalks, or non-constructible land. Another strategy observed in all interventions is the utilization of reused or left-over materials and objects to create enclosures, doors, retaining walls, gather water, etc. For instance, in Intervention 2, a wooden bed frame has been deployed as retaining wall among farrows. Among the differences between the interventions, a flagrant one is their size and scale of production.

Specific commonalities and differences observed in Table 5 are further developed in each intervention sub-section, with the data collected through interviews and focus-group.

Intervention 1

This intervention is composed of 20 plots of different sizes, which was decided by the residents of *calle 7* over 30 years ago, in function of their capacity and motivation to engage in these activities. According to a female elderly resident I interviewed, this non-constructible 3,388 square meters plot was given by the Municipality, to residents of *calle 7*, to exploit it with urban agriculture for domestic use (see Figure 17).

The 20 family-sized plots range from roughly 25 to 190 square meters in surface, and produce a variety of herbs, vegetables, fruits and flowers. The farming technique is the same for everyone: traditional soil farming. Some plots present spaces dedicated to composting and storage of farming tools. Due to their easy accessibility, some participants had some produce stolen. Moreover, through the interviews, I learned about a common practice among those engaged in urban farming in this space is the exchange of produce (*trueque*) according to a female resident. Plot N. 10 is one of the smallest and is used as a cover garage. Plots N. 18 to 20 are not cultivated. Finally, another component that is unique to this intervention is that the proximity between the orchards enables the quick propagation of plagues and weeds.

In light of the partial superposition of Rodríguez Badillo (2025) area of study to this intervention, particularly block W, I address the key findings concerning the characteristics and conditions of this practice (see Figures 18 and 19). For instance, among the 33% out of 90 respondents who engage in urban agriculture, 63% of these orchards are maintained by women (19 individuals), while 37% are maintained by men (11 individuals). Thus, the predominant demographic of urban agriculture participants in this area is: female married homeowners.

Figure 17 – Urban agriculture intervention 1. Map obtained from Secretaría de Hábitat y Ordenamiento Territorial (2025) and edited by the author in 2025. Pictures taken in March 2022

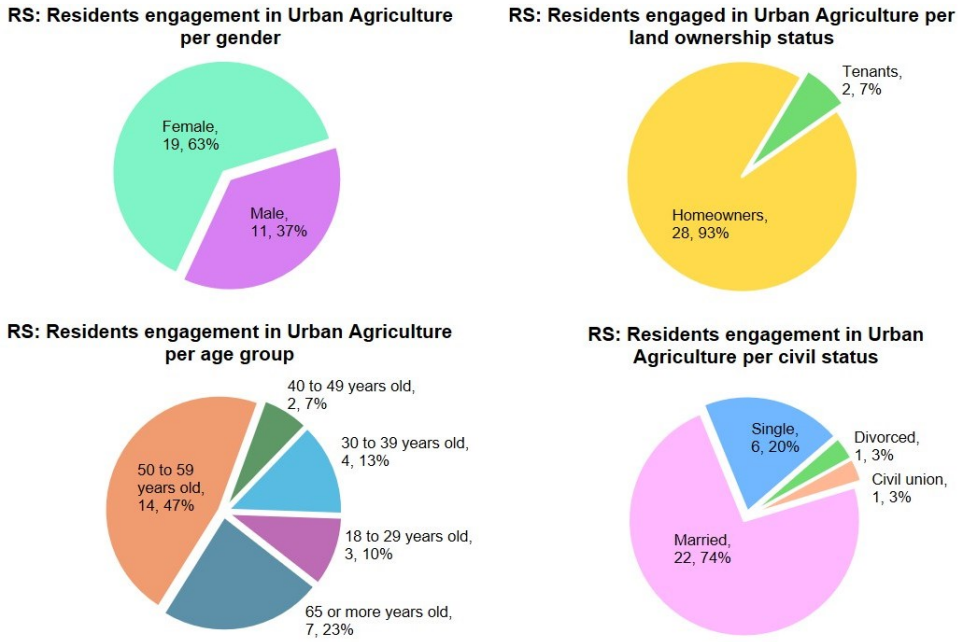

Figure 18 – Sociodemographic data about respondents in blocks V and W (Rodriguez survey)

93% of the participants are homeowners, while 7% are tenants (Rodríguez Badillo, 2025, p. 96). 74% of individuals were married, 20% were single, and 3% were either divorced or in a civil union. The demographic composition of the sample is as follows: almost half or 47% of the participants were between the ages of 50 and 59, 23% were 65 or older, 13% were between 30 and 39 years of age, 10% were between 18 and 29 years of age, and 7% were between 40 and 49 years of age (Rodríguez Badillo, 2025, pp. 96-98).

Regarding these practices, 37% were in place for between 30 and 40 years (Figure 19). This is followed by 30% that existed between 10 and 15 years, 13% between 1 and 3 years, 10% between 5 and 9, 7% between 20 and 29, and 3% have existed for less than one year. Moreover, 57% of these orchards were situated on private land, 30% in public land, and 13% in both types of spaces.

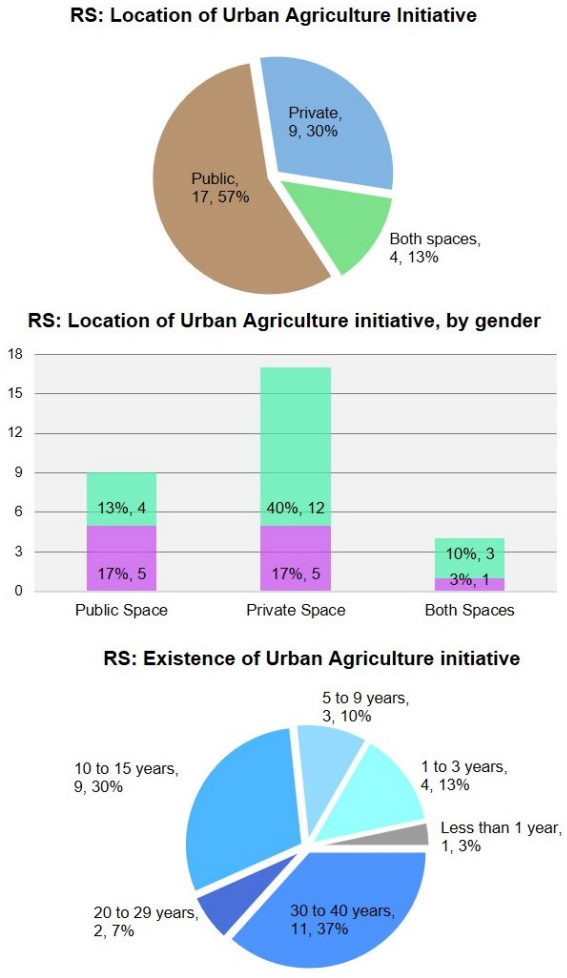

Figure 19 – Data about urban agriculture practices led by residents of blocks V and W (Rodriguez survey)

Rodríguez Badillo (2025) meticulously examines residents engaged in urban agriculture practices, by disaggregating the data by gender as well as where the practice is located. This reveals a predominance of women engaged in urban agriculture in private spaces, constituting 39.7% of the sample, in contrast to the 16.6% of male participants. In contrast, slightly more male individuals engage in urban agriculture in public spaces (16.6%), while the rate for female individuals is 13.2%. Finally, with regard to urban agriculture in both public and private spaces, 10.1% of the participants were female, while 3.8% were male (*Ibid.*, pp. 96-98).

Intervention 2

The present intervention has a surface of around 122 square meters, which represents one medium size plot of Intervention 1 (see Figure 20). Even though this plot is the most secure one, being inside the wall enclosures of a community center, it is situated in a steep topography on a triangular corner. Yet, at first glance, based on the amount of cultivated produce, its enclosures and divisions, it is well cultivated and taken care of. This could be explained by the fact that this is a collective practice held by a group of elderly residents (*60 y Piquito*).

Figure 20 – Urban agriculture intervention 2. Map obtained from Secretaría de Hábitat y Ordenamiento Territorial (2025) and edited by the author in 2025. Top picture taken in March, and bottom picture taken in September 2022

Intervention 3

This intervention is an unusual case. Its small size (approximately 35 square meters), its ornamental character, and its integration into ordinary public spaces contribute to its near invisibility, compared to the other ones (see Figure 21). However, it is not common to encounter sidewalks adorned with large flowers and bushes, deliberately placed in the pathway. Nor to encounter a retaining wall fully planted with flowers and ornamental plants.

It is the only intervention not situated on Av. 21 de Agosto. Instead, it is situated on a street with minimal traffic, in an isolated area near an open ravine and riverbank. These conditions provide an ideal environment for criminal activity, landslides, and flooding.

Figure 21 – Urban agriculture intervention 3. Map obtained from Secretaría de Hábitat y Ordenamiento Territorial (2025) and edited by the author in 2025. Top picture taken in September 2022. Bottom picture obtained from Google Maps on May 9, 2025.

Quality of cultivated produce in informal contexts

According to the SUSTENTO survey on LLDLP, Quito, and Ecuador, the quality of locally cultivated food is very good (31%), acceptable (24%), good (12%), and poor (8%) – see Figure

22. It is noteworthy that none of the 49 respondents selected the option ‘very poor’. It is important to note that almost a quarter (24%) of the respondents did not answer this question because they answered ‘no’ to question number 5 regarding their knowledge of urban agriculture practices in their neighborhood, city, or country.

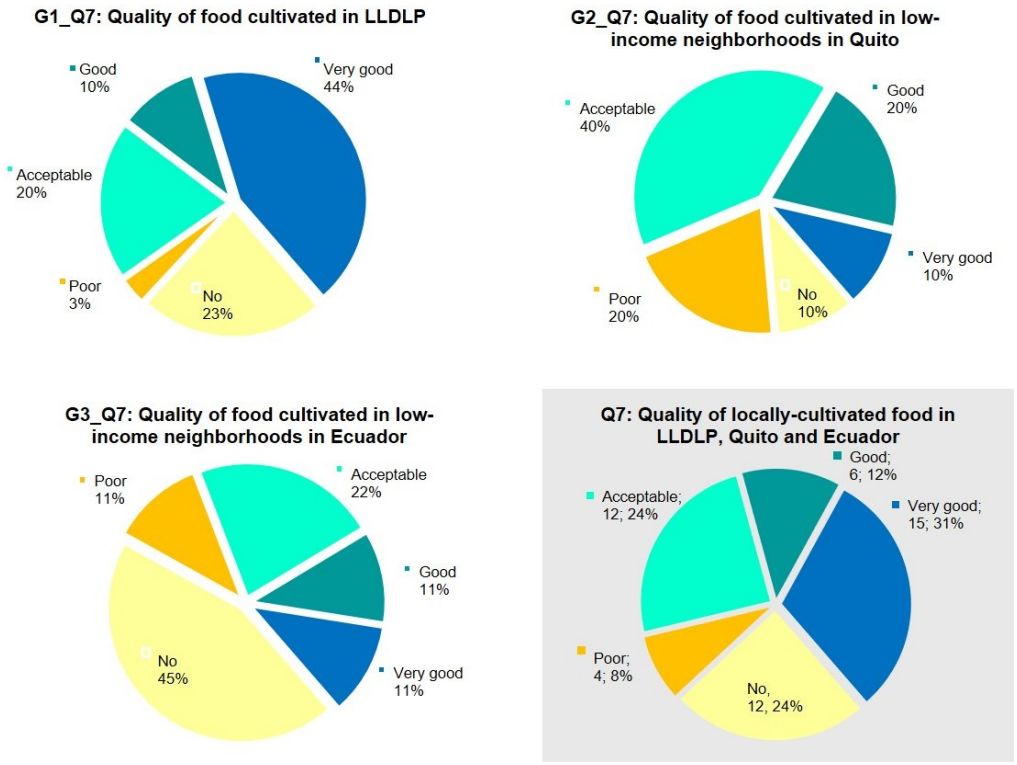

Figure 22 – Quality of food cultivated in LLDLP, and low-income / informal neighborhoods in Quito and Ecuador (SUSTENTO survey)

Almost half of the residents consider the food grown in their neighborhood to be very good (44%), followed by acceptable (20%), good (10%), and poor (3%). Among the authorities, the majority consider it to be acceptable (40%), equally good and poor (20%), and very good (10%) on a municipal level. Academics and researchers also consider it to be mostly acceptable (22%), followed by equally poor, good, and very good (11%) on a national level.

Harvest frequence in informal contexts

According to SUSTENTO survey on LLDLP, Quito, and Ecuador, the frequence of locally cultivated food harvest is very rarely (37%), rarely (27%), occasionally (8%), and frequently (4%)

– see Figure 23. It is worth noting that none of the 49 respondents selected the option ‘very frequently’. It is important to note that 24% of all respondents did not answer this question because they answered ‘no’ to question number 5 about their knowledge of urban agriculture practices in their neighborhood, city, or country.

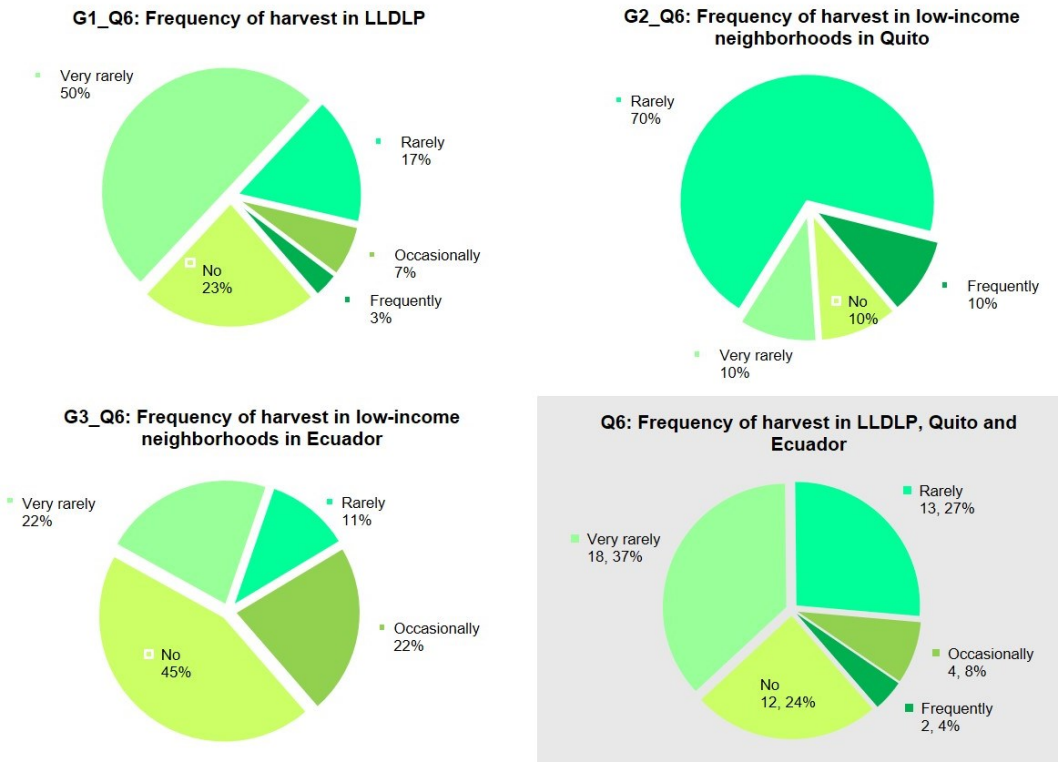

Figure 23 – Frequency of harvest in LLDLP, and low-income / informal neighborhoods in Quito and Ecuador (SUSTENTO survey)

Half of the residents consider the frequency of locally harvested food to be very rarely, followed by rarely (17%), occasionally (7%), and frequently (3%). Among the authorities, the vast majority consider it to be rarely (70%), and equally very rarely and frequently (10%). Most of the academics find it to be equally very rarely and occasionally (22%), followed by rarely (11%).

Key take-aways

The data indicates that the three interventions take place on municipal land, and only one does not have the permission of the authorities (Intervention 3). Two of the interventions are dedicated to growing food (1 and 2), and the third (3) uses ornamental plants to occupy public space. Two

of the interventions – 2 and 3 – are collectively maintained by elderly residents who are members of the group *60 y Piquito*. Intervention 1 is the only one maintained by intergenerational members of families, organized in 16 active farming plots.

Even though financial resources were not allocated for the acquisition of these residual and non-constructible lands, other resources have been invested. For instance, in Interventions 1 and 2, residents reused or repurposed materials to create divisions and retaining walls, doors, etc. In all of these interventions, participants have invested resources such as water, soil, seeds, seedlings, and farming tools. They partake in physically demanding and time-sensitive activities, such as watering, weed removal, planting, composting, and harvesting. During these activities, participants apply and develop knowledge of food cultivation. Participants interviewed in intervention 1, informed of sporadic theft of produce in small quantities, as well as occasional produce exchanged among family members and neighbors (*trueque*).

On the matter of quality and frequency of food harvested in LLDLP, and low-income and informal neighborhoods in Quito and Ecuador, it was observed that:

i. A significant proportion of LLDLP residents hold positive opinions regarding the quality of the produce, with 44% finding it ‘very good’. This is a salient point, given that this group is more likely to have contact with produce cultivated in the neighborhood, than municipal authorities. The latter group has the highest percentage of individuals who hold a negative opinion on the matter. 20% of respondents found the quality of food cultivated in low-income and informal neighborhoods in Quito to be ‘poor’.
ii. Contrary to the results observed in food quality, municipal authorities exhibit the most favorable opinion towards the frequency of harvest, with 10% finding it to occur ‘frequently’. Furthermore, 50% of LLDLP residents indicated that they find it to be ‘very rarely’. This could be indicative of the residents’ interest in engaging in urban agriculture, as well as expanding the spaces dedicated to this practice.
iii. The number of participants and interventions is challenging to interpret, due to limited data.

The following sections will elucidate the fundamental motivations and constraints that underpin this practice, according to the three different stakeholders (residents, authorities, and academics).

c) Food Consumption

This section pertains to the third category of results and is divided into two parts: quality and quantity of food consumed by participants in SUSTENTO surveys.

Quality

According to SUSTENTO surveys, respondents perceive the quality of the food they consume in LLDLP, Quito, and Ecuador to be average or acceptable (39%), followed by very good (20%), very poor (16%), and equally good and poor (12%) – see Figure 24.

The group that finds the quality of their food to be acceptable with the highest percentage is residents (47%), followed by authorities (40%), and academics (11%). In a similar trend, these three groups also find it to be very poor (44%, 30%, and 3% respectively). In the 'very good' category, the highest percentage of respondents who expressed agreement were residents (30%), followed by academics (11%). Residents and academics have a predominantly positive view of the quality of food consumed, when 'good' and 'very good' are added up by group (43% and 33%, respectively). Local authorities do not consider the quality of the food they consume to be 'good' or 'very good'. In fact, 30% of them find it to be equally 'very poor' and 'poor'.

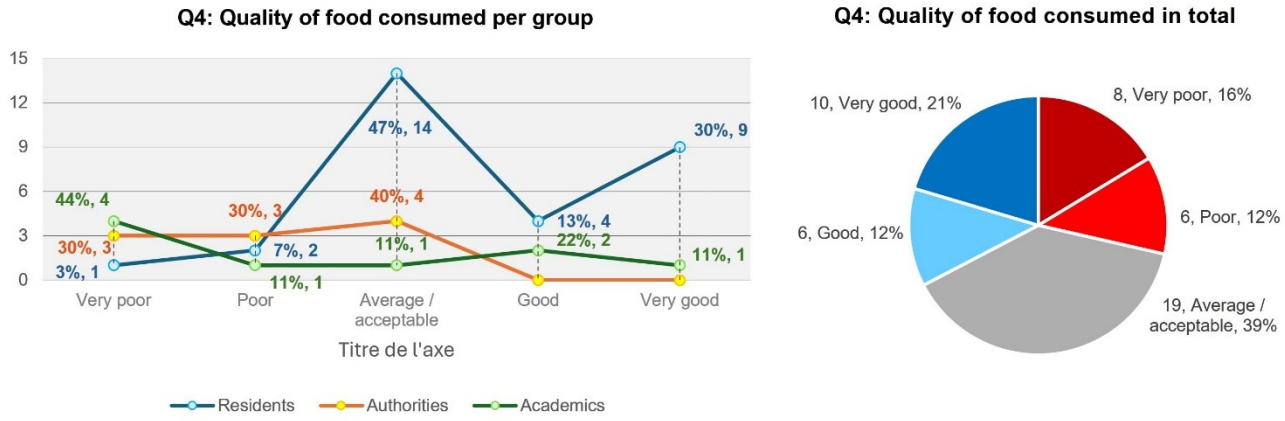

Figure 24 – Quality of food consumed according to respondents (SUSTENTO survey)

Quantity

According to SUSTENTO surveys, respondents perceive the quantity of the food they consume in LLDLP, Quito, and Ecuador to be average or acceptable (37%), followed by poor (24%), good (18%), and equally very good and very poor (10%) – see Figure 25.

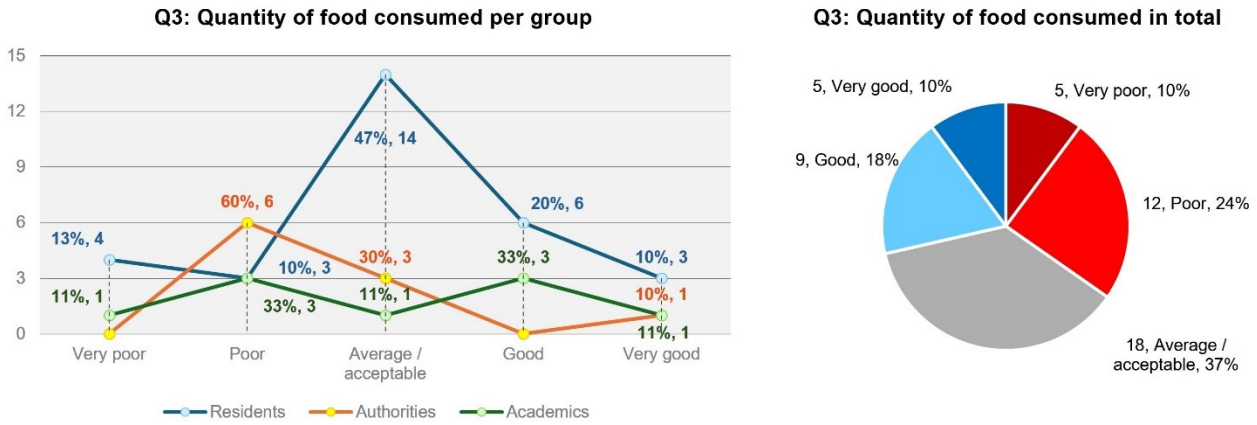

Figure 25 – Quantity of food consumed according to respondents (SUSTENTO survey)

Similarly to the average perception of the quality of food, the group that finds the quantity of food they consume to be acceptable with the highest percentage is residents (47%), followed by authorities (30%), and academics (11%). It is noteworthy that local authorities do not consider the quality of the food they consume to be ‘good’ or ‘very poor’. In fact, 60% find it to be ‘poor’, and only 10% find it ‘very good’. Academics and residents have a predominantly positive view of the quantity of food consumed, when ‘good’ and ‘very good’ are added up by group (44% and 30%, respectively).

Key take-aways

The SUSTENTO Survey reveals that among the 49 respondents, the quality and quantity of food consumed is mostly acceptable or average, with 39% and 37% of respondents falling into these categories, respectively. In that regard, the group of respondents that predominantly agrees with the food quality and quantity being average is that of residents (47% equally).

Among the respondents, authorities and academics constituted the highest percentage of respondents of those who assessed the quality of food they were consuming as ‘very poor’ and ‘poor’. On the matter of food quantity, the group expressing the most negative opinion is that of authorities, followed by academics. 60% of authorities consider it as ‘poor’, and 33% of academics share this opinion. In contrast, residents reported the highest percentage of ‘very good’ food quality at 30%. However, regarding food quantity, only 10% of residents consider it to be ‘very good’.

d) Main drivers, motivations, and benefits in urban agriculture

This section describes the fourth category of results, which is organized into seven sub-categories: environmental impact, social impact, financial implications, crime mitigation, wellbeing and relaxation, healthy and nutritious eating, and reconnecting with ancestral knowledge. It should be noted that the final five benefits were the exclusive focus of Rodríguez Badillo's research (2025, p. 116). Therefore, the data concerning these five elements is indicative of the opinions held by residents of blocks V and W.

Environmental impact of urban agriculture practices in low-income and informal neighborhoods

In response to inquiries regarding the significance of the environmental impact, caring, and management of the environment in the context of urban agriculture, the 49 respondents of the SUSTENTO survey provided their insights (see Figure 26).

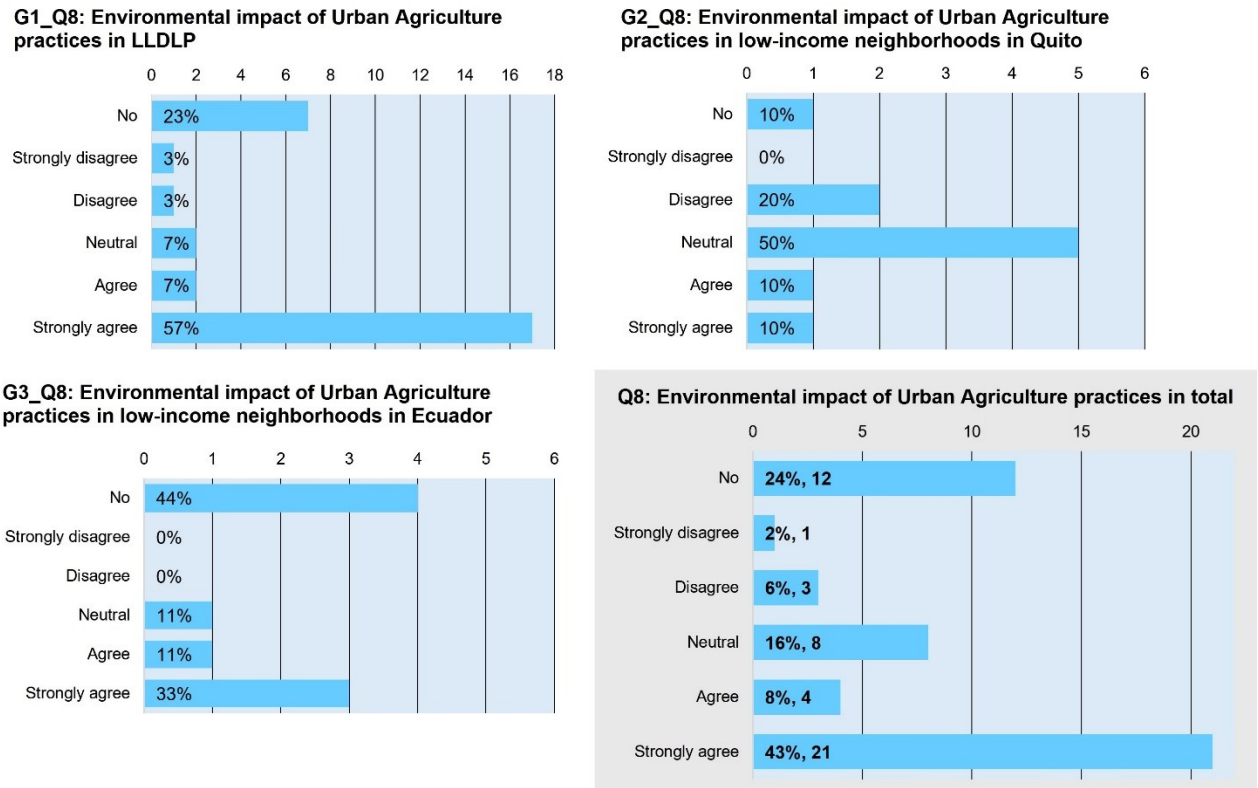

Figure 26 – Environmental impact of urban agriculture (SUSTENTO and Rodriguez survey)

The highest percentage of respondents, 43% strongly agree that urban agriculture activities generate an environmental impact, followed by 16% who find it to be neutral, 8% who agree, 6% who disagree and 2% who strongly disagree. It is noteworthy that nearly a quarter (24%) of the respondents did not respond to this question because they answered ‘no’ to question number 5 regarding their knowledge of urban agriculture practices in their neighborhood, city, or country.

When the responses are examined according to each group of participants, there are significant variations. For example, the highest percentage of residents (57%) strongly agree that urban agriculture activities impact the environment, 50% of authorities consider it to be neutral, and 33% of academics strongly agree. Among the academics, none selected the options ‘strongly disagree’ or ‘disagree’, and among the authorities, none selected ‘strongly disagree’. However, authorities (20%) and residents (3%) are the groups most in disagreement with this impact. Moreover, 3% of residents expressed ‘strongly disagreement’ with this impact.

Participants in Rodríguez Badillo (2025, p. 116) survey also rated the importance of environmental care as one of 7 benefits of urban agriculture practices, with 63% of respondents indicating that it was ‘extremely important’, and 23% indicating that it was ‘very important’. 8% of respondents expressed it to be ‘important’. Finally, 3% of the participants indicated that this benefit was ‘not very important’ and ‘not important’ equally.

Social impact of urban agriculture practices in low-income and informal neighborhoods

When asked to grade the impact of urban agriculture on social interaction, family, and community life, the 49 respondents to the SUSTENTO survey provided answers that varied significantly (see Figure 27). In total, 39% of the respondents ‘strongly agree’, followed by 16% who agree, 10% who find it neutral, 6% who disagree, and 4% strongly disagree. 24% of the respondents did not respond to this question because they answered ‘no’ to question number 5 regarding their knowledge of urban agriculture practices in their neighborhood, city, or country.

The survey results per group indicate that most residents strongly agree (53%) with this impact, and 10% agree. Most of the authorities remain neutral (40%), while 30% agree, and 10% equally strongly agree and disagree. Among academics, 22% strongly agree and agree (22%), while 11% disagree. Only academics and authorities did not select the option ‘strongly disagree’; they did not select ‘neutral’ either. The option ‘strongly disagree’ was not selected by academics or authorities. Academics did not select ‘neutral’ either.

Residents that participated in Rodríguez Badillo (2025, p. 116) survey in 2022, rated the importance of interacting with others as one of 7 benefits of urban agriculture practices. 17% of the respondents indicated that it was ‘extremely important’, and 30% that it was ‘very important’. 7% of respondents expressed it to be ‘important’. Finally, 23% indicated that this benefit was ‘not very important’ and ‘not important’ equally.

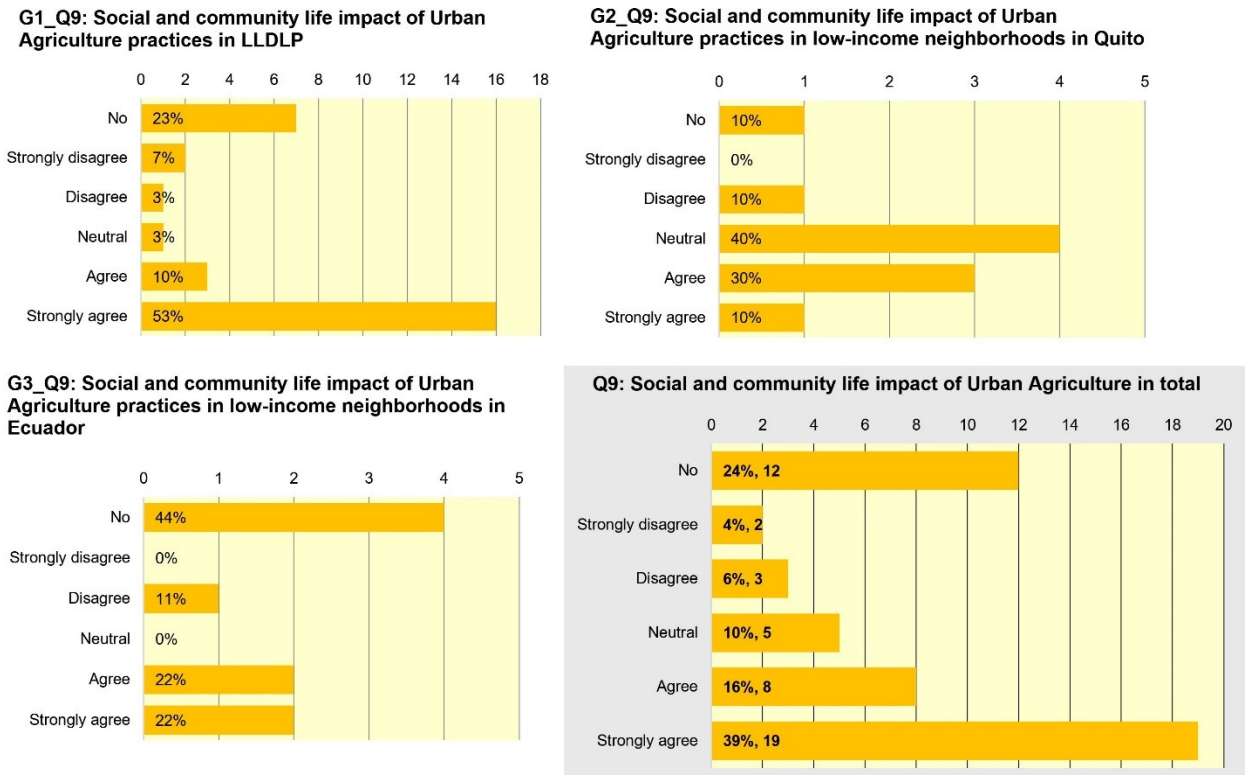

Figure 27 – Social impact of urban agriculture (SUSTENTO and Rodriguez survey)

Financial implications, crime mitigation, wellbeing and relaxation, healthy and nutritious eating, reconnecting with ancestral knowledge

Financial implications were considered as extremely important by half of the participants, followed by 23% indicating that it was very important and 10% finding it important. Meanwhile, 7% found it ‘not very important’ and ‘not important’ equally.

The responses to the question regarding crime mitigation were as follows: ‘not important’ (50%), ‘important’ (17%), ‘not very important’ and ‘extremely important’ equally (13%), and ‘very important’ (7%).

A significant majority of respondents, 87%, indicated that wellbeing and relaxation were extremely important, while the remaining 17% ranked it as very important.

The importance of healthy and nutritious eating was highlighted by more than half of the respondents (53%) who find it ‘extremely important’. 27% found it ‘very important’, 17% considered it important, and 3% found it ‘not very important’.

The value of reconnecting with ancestral knowledge was expressed as ‘extremely important’ by 53% of respondents. 23% of respondents indicated that they find it very important, 10% believe it to be important, and 7% find it equally ‘not very important’ and ‘not important’.

Key take-aways

The SUSTENTO survey data indicated that most participants held favorable opinions regarding the environmental and social impact, with LLDLP residents expressing particularly positive opinions. 43% of all respondents strongly agree on environmental impacts, and 39% on social impacts. Moreover, 57% of residents strongly agree on environmental impacts, and 53% on social impacts. However, data from both respondents and residents indicate a slightly stronger perception of environmental impacts compared to social impacts.

Rodríguez Badillo (2025) examination of seven drivers and benefits offers significant insights into dimensions that were not thoroughly addressed in the SUSTENTO survey. The data reveals that residents in blocks V and W have divergent perceptions of the benefits of urban agriculture practices. For instance, they rated the following benefits as ‘extremely important’: relaxation and wellbeing (83%), environmental caring (63%), healthy and nutritious eating, as well as reconnecting with ancestral knowledge (53%), financial implications (50%), interaction with others (17%), and crime mitigation (13%). However, it is important to note that the majority of these participants are engaged in familiar urban agriculture dynamics.

e) Barriers hindering urban agriculture

This section pertains to the fifth and last category of results. In the SUSTENTO survey, LLDLP residents were confronted with 12 barriers, while local authorities and Ecuadorian researchers

were presented with 11. The 11 barriers presented to all groups of participants included the following:

1. lack of support from the municipality
2. municipal regulations
3. lack of resources in the community
4. lack of interest from my neighbors
5. lack of space
6. lack of time
7. lack of training and education in urban agriculture
8. lack of infrastructure, including water, electricity, drainage, sewage, etc.
9. crime, such as theft of produce or tools, and insecurity
10. economic factor, e.g. to produce food locally, is more expensive than to buy food at the store or the market
11. lack of roads or transportation infrastructure

The 12th barrier pertains to the relationship with the partner or spouse. Additionally, participants were given the option to identify other barriers. Further details on this matter can be found in the following section.

Barriers in LLDLP according to residents

The data indicated that most respondents selected ‘strongly agree’ and ‘strongly disagree’ as their responses (see Figure 28). There is a strong consensus that lack of space is a barrier to urban agriculture practices in their neighborhood. Furthermore, more than half of the residents assigned a value of ‘strongly agree’ to 9 barriers, while 3 other barriers had ‘strongly disagree’ as the highest percentage value.

In a descendant rank, participants strongly agree that the following factors interfere with urban agriculture: lack of space (100%), lack of resources in the community (87%), crime (83%), and municipal regulations (73%). 70% of respondents ‘strongly agree’ with the following three barriers to urban agriculture: a lack of support from the municipality, a lack of interest from my neighbors, and a lack of training and education in urban agriculture. 63% of respondents selected ‘strongly agree’ for a lack of time, followed by 57% who identified economic factors, 37% mentioned lack of infrastructure, 27% chose lack of roads and transportation infrastructure. Finally, 20% indicated that their relationship with their partner, husband, or wife was a contributing factor.

In a descendant rank, participants ‘’strongly disagree with the following aspects that interfere with urban agriculture in LLDLP: lack of roads and transportation infrastructure equally to relationship with my partner, husband, or wife (57%), lack of infrastructure (53%), economic factor (30%), lack of time (23%), lack of training and education in urban agriculture (20%), lack of interest from my neighbors as well as lack of support from the municipality (13%), municipal regulations as well as crime (10%).

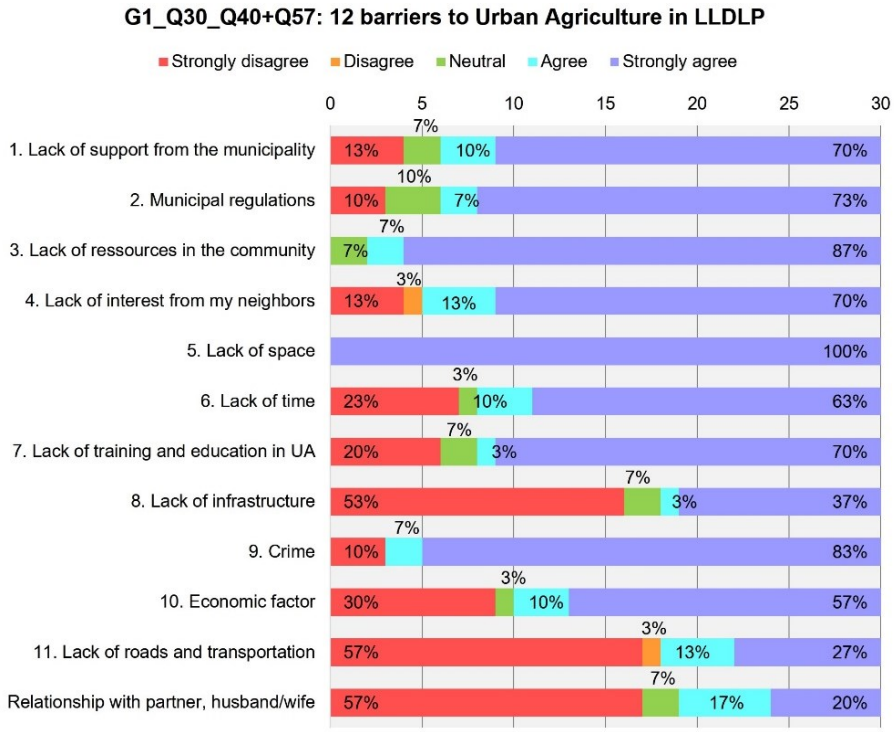

Figure 28 – Barriers to urban agriculture in LLDLP according to residents (SUSTENTO survey)

Barriers in Quito according to authorities, officials, and decision-makers

Among the 11 barriers to urban agriculture practices in low-income and informal neighborhoods in Quito, authorities predominantly ‘strongly agree’, ‘agree’, and remain ‘neutral’ (see Figure 29). The option of ‘strongly agree’ was slightly more prevalent than ‘agree’.

In a descendant rank, participants strongly agree that the following factors interfere with urban agriculture activities: lack of training and education in urban agriculture (60%), lack of support from the municipality, as well as lack of resources in the community, and lack of time (50%), lack of

interest, as well as lack of infrastructure, and economic factors (40%), lack of roads and transportation infrastructure (30%), crime, as well as municipal regulations, and lack of space (20%).

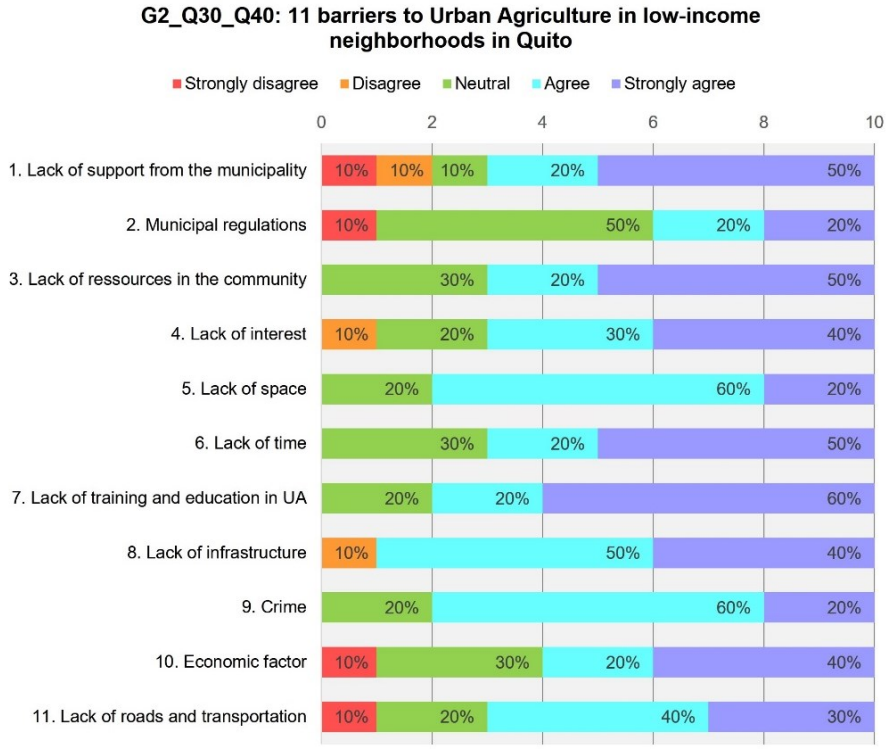

Figure 29 – Barriers to urban agriculture in Quito's low-income and informal neighborhoods according to local authorities (SUSTENTO survey)

In a descendant rank, participants agree that the following aspects interfere with urban agriculture practices: lack of space and crime (60%), lack of infrastructure (50%), lack of roads and transportation infrastructure (40%), lack of interest (30%), and economic factor, as well as lack of training and education, lack of time, municipal regulations, lack of resources in the community, and lack of support from the municipality (20%).

Barriers in Ecuador according to academics and researchers

Among the 11 barriers to urban agriculture practices in low-income neighborhoods in Ecuador, academics were slightly more 'neutral', followed by equal percentages of 'disagreement' and 'strongly agreement' (see Figure 30).

More than half of the academics, 56%, maintain a neutral stance on the lack of support from the municipality, and express disagreement with the possibility that the lack of roads and transportation infrastructure hinders urban agriculture. In that regard, none of the respondents expressed ‘strongly agreement’ about the impact of the lack of road and transportation. Additionally, there was no ‘strong disagreement’ among academics concerning five barriers, including the lack of resources in the community, interest or time, crime, and economic factors.

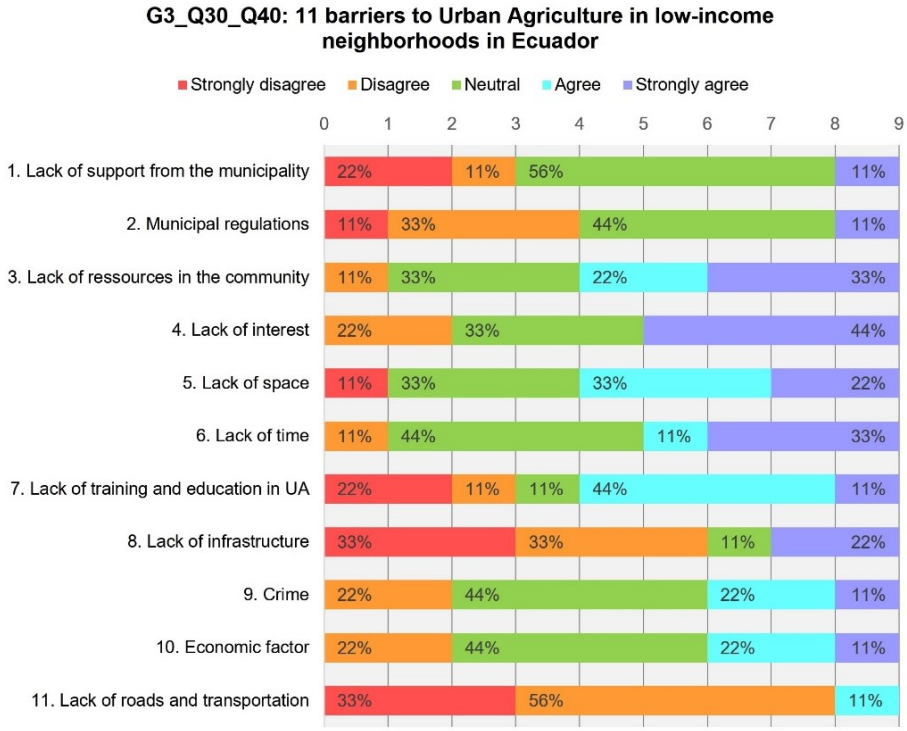

Figure 30 – Barriers to urban agriculture in Ecuador’s low-income and informal neighborhoods according to academics and researchers (SUSTENTO survey)

In a descendant rank, participants remained ‘neutral’ regarding the following factors that potentially hinder urban agriculture: lack of support from the municipality (56%), municipal regulations, lack of time, crime, and economic factors (44%). 33% of respondents reported being equally neutral to the lack of resources in the community, lack of interest, and lack of space. Finally, 11% are neutral to the lack of training and education in urban agriculture as well as to the lack of infrastructure.

There was a strong consensus among academics regarding the factors that ‘strongly’ limit urban agriculture practices. The most chosen barriers include a lack of interest (44%), lack of time, as

well as lack of resources in the community (33%), lack of space and infrastructure (22%), and a lack of support, municipal regulations, lack of training and education in urban agriculture, crime and economic factors (11%).

Other barriers according to residents, authorities, and academics

Among the groups of SUSTENTO survey respondents, local authorities, officials, and decision-makers did not provide any comments on the section entitled 'other barriers' (Q41). Almost half of the residents responded (40%), as well as 67% of the academics (see Figure 31).

The majority of the comments from the residents can be considered as reiterations of 6 of the 12 previously addressed barriers, except for one. Most of these barriers were rated as 'strongly agree' by the same participants. The most frequently cited barriers were the lack of space (mentioned 5 times), and the lack of interest from neighbors (3 mentions). The following three barriers were mentioned twice: lack of support from the municipality, lack of training and education in urban agriculture, and lack of infrastructure. The issue of lack of resources in the community was addressed on a single occasion.

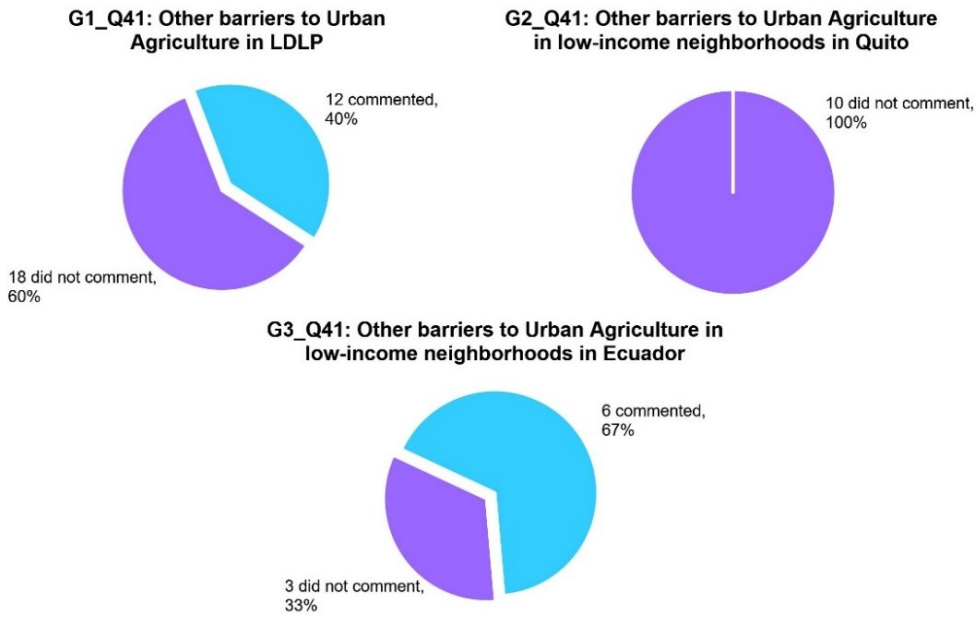

Figure 31 – Additional barriers to urban agriculture (SUSTENTO survey)

Among the academics, most of their remarks appear to be reiterations of 4 of the 11 previously mentioned barriers. Some of these barriers were indicated as ‘strongly agree’ by the same participants. In descent order, the most frequently cited barriers were lack of interest and lack of training and education in urban agriculture (2 mentions each), followed by lack of space, and lack of infrastructure (1 mention each).

One comment suggests a new barrier in the form of external influences on eating habits that can impact this practice: “Large food industries bombard with marketing campaigns that promote the consumption of ultra-processed and non-fresh foods, which impacts people's interest in producing food”.

Key take-aways

The variation in the barriers’ ratings by the three groups of respondents was a remarkable finding (see Figure 32). Furthermore, the two additional comments made by residents and academics reveal potential barriers to consider in the examination of this practice: the lack of interest from young people, and the influence of ultra-processed food marketing campaigns on residents’ eating habits and engagement in urban agriculture.

Regarding the first two barriers, namely the lack of support from the municipality and municipal regulations, it is noteworthy that the group of authorities expressed a ‘strong agreement’, aligning closely with the opinions of the residents. 70% of residents, 50% of authorities, and 11% of academics strongly agree that the municipality’s lack of support is an obstacle to urban agriculture. Among residents, 73% strongly agree and 7% agree on municipal regulations as barriers to these practices. 20% of authorities expressed ‘strongly agreement’, while an additional 20% expressed ‘agreement’. Among academics, 11% strongly agree, and none expressed agreement with this barrier.

Likewise, regarding the third barrier – limited resources in the community – it is residents and authorities who largely ‘strongly agree on the matter’. Among residents, the vast majority strongly agree (87%), while 7% agree. Half of the authorities strongly agree, and 20% agree. 33% of academics strongly agree, and 22% agree.

The issue of lack of interest (barrier 4) as an obstacle to urban agriculture was also rated as a key concern by all groups. 70% of residents strongly agree, and 13% agree. Almost half of the authorities strongly agree (45%), and 30% agree. 44% of academics strongly agree, none ‘agree’, with 33% remaining neutral.

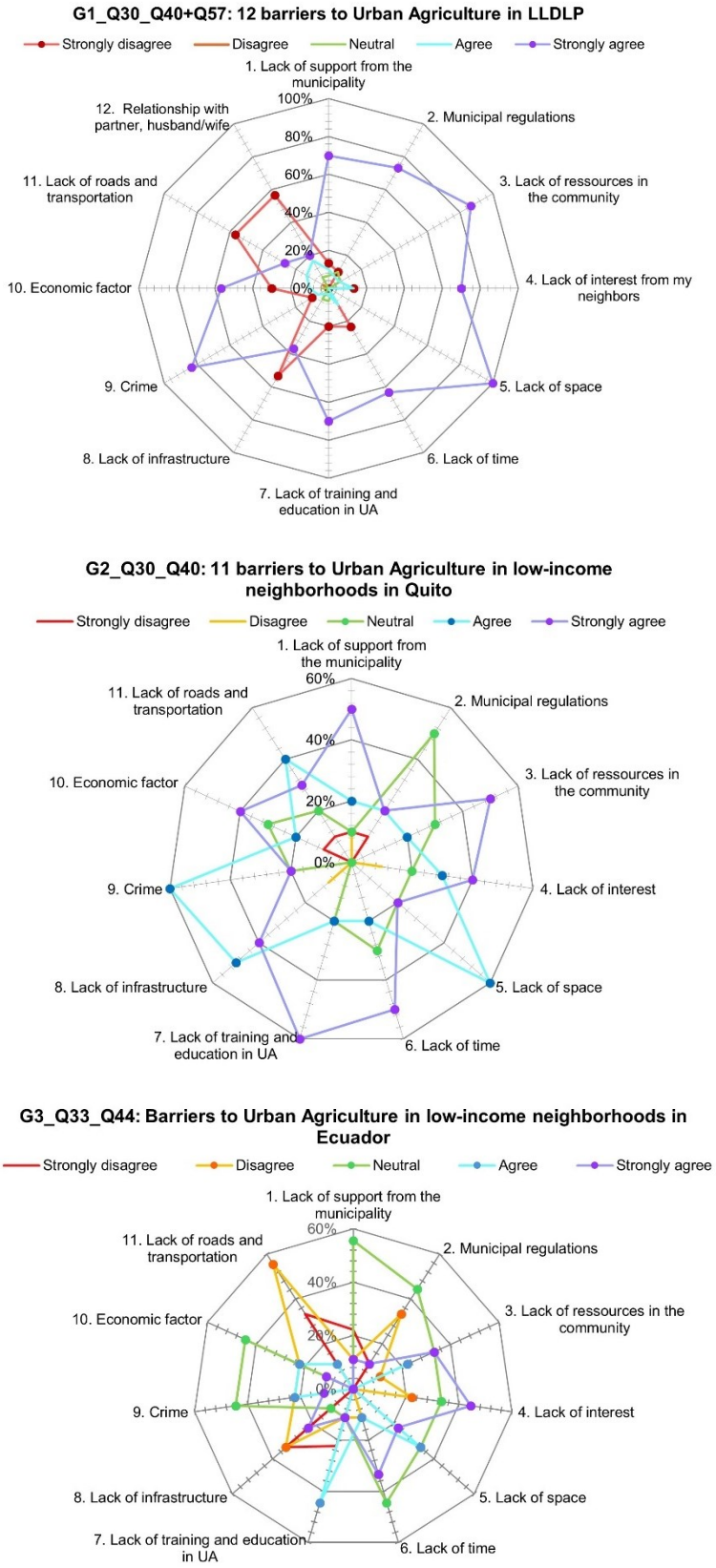

Figure 32 – Barriers to urban agriculture, according to residents (G1), authorities (G2), and academics (G3) (SUSTENTO survey)

Residents identified a lack of space as a key barrier to urban agriculture practices in their neighborhood, with all participants ‘strongly agreeing’ on this issue. In addition, 60% of authorities agree, and 20% strongly agree. 33% of academics agree, and 22% strongly agree. These finding places this barrier in a prominent position among the others.

The issue of lack of time (barrier 6) was given high ratings by residents, with 63% in ‘strongly agreement’ and 10% in agreement. Among authorities, half strongly agree, and 20% agree. 33% of academics strongly agree, and 11% agree. None of the academics or authorities strongly disagree, but 23% of residents expressed to ‘strongly disagree’.

Likewise, the lack of training and education in urban agriculture (barrier 7) was highly rated by residents, followed by authorities, and academics. 70% of residents expressed ‘strong agreement’, while 20% chose ‘strong disagreement’. 60% of authorities strongly agree, and 20% agree. 44% of academics agree, 22% strongly disagree, and 11% equally agree, disagree, and remain neutral.

On the lack of essential infrastructure (barrier 8) – including electricity, water, drainage, and sewage systems – the ratings vary significantly among groups. For instance, among residents of LLDLP, 53% strongly disagree, while 37% strongly agree. Most authorities rate this barrier as significant: 50% of respondents expressed agreement, and an additional 40% strongly agree. On the contrary, most academics do not regard this factor as an important barrier, with 33% strongly disagreeing and disagreeing equally. However, 22% of academics strongly agree.

Crime (barrier 9) is a significant barrier for residents and authorities, but it is less frequently cited by academics. 83% of residents strongly agree, 20% of authorities, and 11% of academics. Furthermore, 60% of authorities and 22% of academics agree on this matter. On the contrary, 10% of residents strongly disagree, and 22% of academics disagree.

Similarly, on the issue of the economic factor (barrier 10), residents and authorities identified it as an important barrier. 57% of residents strongly agree with this statement, as well as 40% of authorities and 11% of academics. 10% of residents, 20% of authorities, and 22% of academics have expressed their agreement. Nevertheless, 30% of residents and 10% of authorities strongly disagree with this assessment.As with barrier 8, there is considerable variance among groups regarding the impact of the lack of roads and transportation infrastructure (barrier 11). For instance, 57% of residents strongly disagree, while 27% strongly agree, and 13% agree. Among authorities, most of them consider this issue to be significant: 40% agree, 30% strongly agree, 20% remain neutral, and 10% strongly disagree. Academics’ responses were divided but overall

do not consider this issue as important: 56% disagree, 33% strongly disagree, and only 11% agree.

Finally, barrier 12 presents data pertaining only to residents about their relationship with their partner, husband or wife as an obstacle to urban agriculture practices. More than half of the respondents, 57%, strongly disagree, followed by 20% that strongly agree, 17% agree, and 7% remain neutral.

Chapter 8 – Limitations

My study encountered important limitations that influenced its theoretical framework, as well as the implementation of the methodology. Some of the methodological constraints were anticipated and addressed through adaptive strategies, while others emerged unexpectedly in the last quarter of 2022. Nonetheless, these limitations should be acknowledged not only for contextualizing the scope, depth, and reliability of the findings, but also for justifying the integration of secondary data collected by SUSTENTO researchers.

Theoretical limitations

During my investigation into theories and concepts in urban planning, I engaged in a preliminary exploration of decolonization and post-colonization, as well as feminist emerging theories. These perspectives – particularly when mobilized through bottom-up practices rooted in local contexts – have proven to offer valuable frameworks in academia for understanding environmental activities and practices. These emergent lenses are especially pertinent to Quito in reason of its colonial history as one of the first cities colonized by Spain during the 16th century, and that urban agriculture practices are led predominantly by elderly rural from rural migrant backgrounds.

Although not incorporated in the present study due to temporal constraints, I believe that a comprehensive revision of these postulates would contribute to the advancement of our understanding of urban informality and urban agriculture in Southern regions of the world.

Subjectivity and Positionality

Given the qualitative and ethnographic nature of this study, the role of (any) researcher is inherently subjective. My positionality – as a Latin American, “middle-class”, white women researcher with personal and academic ties to the region – inevitably influenced the interpretation of data and the formation of relationships in the field. From the outset, I engaged with local researchers and residents using culturally familiar forms of respect, warmth, and informality, rather than adopting a detached or overly formal stance. While this approach enabled trust, deeper engagement and cultural sensitivity, it also introduced potential biases in observation and representation. To mitigate these effects, I employed reflexive practices and maintained ongoing discussions with my research directors to critically assess my influence and maintain analytical rigor.

Representation

The data collection methods were implemented on a sample of the local population, with a particular focus on residents who actively engage in urban agriculture interventions. In LLDLP, these activities tend to be predominantly attended by elderly individuals and adults. Furthermore, the majority of the residents approached reside in the sector of *La lucha B*. Moreover, we encountered certain local leaders during both site visits and frequently in online materials, such as documentaries, posts on social networks, and local newspaper websites.

This renders the issue of representation paramount, particularly given the influence these leaders exerted on our understanding of the neighborhood's internal dynamics and its residents.

Covid-19 constraints

Although the most restrictive phases of Covid-19 pandemic had passed by March 2022, residual health and sanitary protocols were still imposed, posing logistical and methodological challenges, such as community dynamics, institutional availability, etc. These factors influenced the scheduling and participation of older and vulnerable residents, as well as rates in interviews, focus groups, and observations, potentially limiting the diversity of perspectives captured. The presence of masks and social distancing measures – visible in most photographs from that period – also impacted the spontaneity, expressiveness and intimacy of face-to-face encounters.

Time, migration, and funding

The research was conducted within a defined academic and migratory timeframe – given my status as an international student in Canada – and to not surpass scholarships and funding. These constraints significantly influenced the number of field visits, the duration of on-site engagement, and the overall scope of data collection. While two field visits were successfully completed, a third – originally planned to deepen longitudinal insights – had to be canceled. These limitations reduced opportunities for follow-up interviews and prolonged community immersion, which could have enriched the ethnographic depth of the study. However, strong institutional partnership with FLACSO, and affiliation with the SUSTENTO network helped me mitigate these constraints by providing access to complementary data and local expertise.

Escalation of violence and insecurity

A critical and unforeseen limitation was the escalation of violence and crime in Ecuador during the research period (see Figure 33 and Annex 7). This context introduced serious safety concerns for

both participants and researchers. The cancellation of my third field visit was directly linked to these conditions.

During the September visit, SUSTENTO researchers experienced a mugging incident near FLACSO's facilities. And the following day, our research team encountered a fatal stab victim seeking help at the *Comité Barrial*. These events underscored the volatility of the environment, and the risks associated with conducting fieldwork in such contexts.

Figure 33 – "Ecuadorian army intervenes on LLDLP during state of emergency" (Agencia Peruana de Noticias, 2024)

Such conditions may have limited access to specific areas and discouraged participation from individuals most affected by insecurity. Moreover, the broader climate of fear and mistrust may have influenced not only the openness of participants during interviews and focus groups, but also the visibility and continuity of urban agriculture practices themselves.

Key take-aways

While these methodological and theoretical limitations inevitably informed the boundaries of this study, they also offer valuable insights into future research in similarly complex and dynamic urban contexts. The challenges I encountered – ranging from health crises and institutional constraints to socio-political instability – highlight the importance of methodological flexibility, ethical sensitivity, and contingency planning.

Acknowledging these constraints not only strengthens the transparency of this research but also contributes to a more grounded and adaptive approach in design theory and urban studies.

Chapter 9 – Discussion and recommendations

Discussion

I was able to gain a better understanding of urban informality, the evolution of informal and low-income settlements, and urban agriculture interventions in LLDLP by using a representative case study. Following the presentation of the results and the limitations I encountered in this study (Chapters 7 and 8), I hereby present two thematic discussions – each one is structured around one of my research questions and its corresponding notion of urban informality.

Urban agriculture and clashing rationalities

As a reminder, the first research question that motivated my study is: How do the selected urban agricultural interventions in LLDLP align within the notion of clashing rationalities in urban planning?

To begin the discussion, I will describe a recent planning event that illustrates the "interface" – a zone of encounter and potential contestation – between governing and administration rationalities *versus* survival rationalities. According to Watson (2009, p. 2270), this interface is "shaped by the exercise of power".

In 2024, planning authorities – representing governing and administration rationalities – selected LLDLP and nine other neighborhoods for strategic infrastructure investment (Secretaría General de Planificación, 2024, pp. 42, 92). "Integral urban regeneration" works were carried out in LLDLP's park in October 2024, which the stated goal of creating "safer and more sustainable spaces" (Quito Informa, 2024). In January of 2025, the newly elected mayor of Quito, Pablo Muñoz, inspected park and road infrastructure improvements in La Argelia district, with investments estimated at over USD $ 1.5 million (Quito Informa, 2025). Improvements to the 5,000 square-meter park in LLDLP included upgrades to "open sport fields, lighting, playground equipment", and the planting of 41 trees and 1,506 ornamental plants.

Survival rationalities were represented by community voices, such as LLDLP founding member and leader Rodrigo Guatoluña, who declared that these interventions would "allow neighbors to take ownership of the space during the day and at night for the well-being and health of the community" (*Ibid.*).

The interface represented by the improvements to the park appears to be a zone where state-led efforts properly intersected with the needs of LLDLP low-income and informal community –

suggesting a temporary alignment of both systems in urban planning. This convergence between the two rationalities serves to illustrate Watson's (2003) description of the interface as not inherently conflictual. However, recent analyses of sociodemographic and economic indicators in Quito – including unemployment, food insecurity, gender inequality, violence, and crime (see Chapter 5) – reveal alarming trends. More than 40 years after its foundation, urban realities in LLDLP continue to reflect structural challenges – those typically experienced by populations operating under survival rationalities. These findings suggest that these systemic challenges require more comprehensive and coordinated responses from municipal authorities and planners – that is, from governing and administration rationalities. This underscores the need for planning approaches that move beyond anecdotic interventions and toward sustained, inclusive engagement with local leaders and community members.

Regarding the results previously detailed in Chapter 7, it offered insights into the characteristics and conditions under which the three selected urban agriculture interventions operate. It also clarified the primary motivations driving residents to participate in these interventions, as well as the constraints they face. Opinions from municipal authorities and national researchers regarding environmental and social benefits, as well as eleven barriers were analyzed along those of residents. A remarkable finding is that despite the ongoing multidimensional crisis affecting Ecuador's most vulnerable populations; I did not find financial limitations to be a major barrier for urban agriculture by LLDLP residents. According to the SUSTENTO survey, the three most frequently cited obstacles were limited space, lack of community resources, and crime.

Similarly, while Rodríguez Badillo (2025) found that half of the respondents considered the economic benefits of urban agriculture to be 'extremely important', this benefit ranked only fifth among the seven listed. My analysis of the seven benefits studied by Rodríguez Badillo (2025) suggests that the urban agriculture interventions studied do not originate directly from crisis-driven or survival-based motivations, benefits, mechanisms, or strategies. The top three benefits ranked as 'extremely important' by residents of blocks V and W were: 1) promoting wellbeing; 2) caring for the environment; and 3) both healthy eating habits and reconnection with ancestral knowledge.

This finding challenges the assumption that urban agriculture in low-income contexts is a primarily reactive survival strategy. Instead, it unveils a more complex set of motivations, which I designate as "non-survival" or "beyond-survival" rationality. This rationality is deeply rooted in cultural, ecological, and psychological dimensions. Therefore, while it is possible to examine these three urban agriculture interventions through the lens of the "interface" proposed by Watson (2009), the two rationalities observed in this zone are not clashing. These interventions open space for

planning dialogue and collaboration, within an interface potentially aligned with both rationalities. They demonstrate that urban agriculture can function as an interface, for technocratic-governing and beyond-survival rationalities, not only to meet, but also to co-evolve.

Urban agriculture and the formal-informal continuum

As a reminder, my second research question was inspired in Roy's (2005) work, and is as follows: How may the notion of the formal-informal continuum be examined in the selected urban agriculture interventions in LLDLP? Additionally, Chapter 3 presented three sub-questions when describing the notion of the formal-informal continuum. In response, I propose examining this continuum from two vantage points: how urban agriculture interventions in LLDLP comply with municipal regulations and policies; and how authorities and institutions recognize, support, or limit these practices.

My findings reveal that the first two interventions were dedicated to food production for domestic consumption and adhered to creatively adapted formal practices. In contrast, intervention number 3, although not formalized, does not produce food and is located in a public space in an isolated area. I suspect that this intervention functions as a strategy to mitigate crime risks by asserting a collective presence in urban space.

In summary, none of these interventions provide external services, engage in informal or formal entrepreneurship, or occupy spaces reclaimed from private or public forces – despite all of them being located in public land (i.e., non-constructible land, residual steep corners, sidewalk and retaining walls). This may explain the apparent lack of conflict between these interventions and local authorities, and exemplifies the formal-informal continuum.

The case of *Huertos Agroecológicos Argelia Alta*[19]*,* discussed previously (see Chapter 5), presents a contrasting example. Interviews conducted in March 2022 with three female members revealed more negative than positive perceptions of their formal operation. As a reminder, the formalization process was imposed by authorities at the project's creation, since it occupies public land and was partially funded by a private foundation. Members are required to adhere to agroecological principles, maintain financial records, purchase bio-certification, and hire an accountant.

On the positive side, formalization allows access to financial donations and technical support from public and private institutions. It is noteworthy that, as a principle, technical support and workshops

[19] Association located north of LLDLP in the Argelia Alta settlement. Both are part of La Argelia urban district.

offered by AGRUPAR are not free, but remain accessible to low-income, informal, and vulnerable urban populations.

Lastly, farmers at *Huertos Agroecológicos Argelia Alta* proposed an alternative framework: to operate with organizational functionality without adhering to the rigid structures of a legal entity. I consider this proposition from urban farmers to be a second example of the formal-informal continuum in urban agriculture.

Additionally, the Healthy Food Neighborhoods Ordinance, enacted on April 29, has yet to produce an implementation agenda – expected by the end of September. Thus, it remains to be seen how local authorities and researchers will consider (or not) the complexity of the diverse benefits and limitations of urban agriculture interventions by low-income, informal, and vulnerable populations.

As discussed in Chapter 5, authorities and institutions in Quito tend to operate strictly within the formal sphere. Yet, my findings reveal how authorities have creatively adapted urban regulations to allow residents of LLDLP to practice urban agriculture – albeit limited to domestic use.

Recommendations for future research

After having discussed how the three urban agriculture interventions align with and challenge two theoretical notions in the discourse on urban informality, I can draw two recommendations. My aim is to guide future research and theoretical developments, as well as planning strategies and public policy in southern regions.

Complexity, dynamism, and multi-functionality of urban agriculture

The studied interventions reinforce the need for authorities and planners to gain a more nuanced understanding of the complexity and dynamism of urban agriculture practices according to their context (Castellarini, 2021; Cháves Torres, 2014; Hernández-García & Caquimbo-Salazar, 2018; Lizarralde *et al.*, 2025b). Therefore, urban agriculture should not be approached as a static or monofunctional practice. Rather, it is a fluid and adaptive practice that intersects with multiple urban systems – ecological, social, economic, and cultural.

For instance, I collected data on the field during Covid-19 restrictions and escalating violence linked to transnational crime organizations. My findings are based on data from 2022, such as: LLDLP residents did not perceive crime mitigation as a primary benefit of urban agriculture (50% found it ‘not important’). Additionally, they did not consider crime as a considerable barrier to this

practice (3rd-highest percentage for ‘strongly agree’). And the highest ranked benefits go beyond the realm of survival strategies.

However, these perceptions – and others – must be understood as temporally situated. Given the unprecedented rise in violent crime at both national and municipal levels since 2022, it is likely that community priorities and perceived benefits and limits of urban agriculture have shifted.

In sum, my methodological recommendation for future research is to prioritize longitudinal studies and cultivate trust among leaders and residents of low-income and informal communities, so as to continuously reassess the evolving characteristics and the complex conditions in which urban agriculture is practiced. Such studies should be designed to capture not only changes in material conditions, but also in community values, aspirations, and forms of collective action and leadership.

Planning urban agriculture

To inform regulatory frameworks regarding urban agriculture in southern cities, it is crucial to thoroughly evaluate how overlapping public policies, programs, regulations, and planning interventions affect or foster existing informal urban agriculture systems. This evaluation must move beyond technical assessments and incorporate socio-political analysis of how these frameworks interact with informal practices, often in contradictory or exclusionary ways.

Similarly, SUSTENTO researchers argue that the tensions surrounding urban agriculture in low-income and informal contexts in Latin America and the Caribbean must be addressed in food programs and policy, housing policy, urban regulation, and planning frameworks (Lizarralde *et al.*, 2025a). This calls for an integrated policy approach that recognizes urban agriculture as a cross-sectoral issue, rather than relegating it to isolated initiatives.

Among the scholars and experts that have advocated for a holistic planning approach regarding urban agriculture, the former project manager of AGRUPAR aptly stated the following:

> The city [of Quito] needs to adopt a holistic approach […] to look beyond simply the construction of gardens with a single objective (education, recreation, etc.) and adopt a broader outlook to understand how a municipal program can respond to the needs of different groups of the population (Rodríguez Dueñas, 2019, p. 31).

Additionally, as authorities and planners in Quito face increasingly complex governance challenges, it is imperative to evaluate urban agriculture in relation to equity and social justice

frameworks. This includes assessing disparities in access to land tenure, training, infrastructure, and participatory decision-making. Urban agriculture must be planned not only as a technical solution but as a tool for redistributive justice, especially in contexts marked by deep socio-spatial inequalities.

For instance, it was previously established that gender disparities represent a significant issue in Ecuador's capital. Although AGRUPAR reports that most participants in their urban agriculture projects are women, it is critical to evaluate whether such programs genuinely "empower women" (Ayala, 2024), or regulate and reinforce physically intensive, low-income labor for vulnerable populations. This highlights the need for gender-sensitive planning that interrogates the power dynamics embedded in seemingly inclusive programs.

Another notable regulatory tension involves the limitation on surplus production for sale, which restricts the economic potential of urban agriculture in Quito. Additionally, while the reinforcement of agroecological practices enhances food quality, healthy eating habits, and sustainability, these bio-products are often perceived as more expensive by external consumers, and as unfair competition to local markets, according to council officials (Cáceres, 2025). This tension suggests a disconnect between sustainability goals and market realities.

Another instance that calls for consideration in Quito is the present development of the implementation agenda of the Healthy Food Neighborhoods Ordinance. Such formal regulations hold the potential to support or hinder new and existing urban agriculture practices (formal, informal, and in-between). This ordinance represents a critical policy interface where clashing rationalities must negotiate.

Finally, divergent perspectives among residents, authorities, and academics regarding urban agriculture interventions, reinforce the need for inclusive, participatory, and interdisciplinary approaches to urban agriculture planning. This divergence should not be seen as a barrier but as an opportunity to co-create planning frameworks that reflect urban realities.

In conclusion, I propose theoretical exploration of an operational framework within the formal-informal continuum, to be developed with diverse urban agriculture practitioners, authorities, and researchers. This framework should explore and advance planning paradigms that are not only participatory but also epistemologically inclusive – capable of recognizing and valuing diverse forms of knowledge, such as those rooted in lived experience, ancestral traditions, and community organization. This approach would move planning beyond the management of land use, tenure, and resources. In this vein, the implementation agenda of the Healthy Food Neighborhoods

Ordinance in Quito – currently under formulation – constitutes an ideal framework to explore my recommendations.

Chapter 10 – Conclusions

In the context of low-income and informal urban settlements, urban agriculture is often conceptualized by authorities, planning theorists and practitioners as a survival mechanism. However, its role in the production of urban space – and the extent to which it is facilitated or hindered by planning and regulation – has received limited attention. In response, I examined urban agriculture practices through the lens of emerging epistemologies in Southern planning theories. My primary objective was to enhance the understanding of urban informality practices led by low-income and informal communities in Latin America.

The analysis of three urban agriculture interventions yielded a more nuanced and situated comprehension of urban informality, particularly in relation to the historical and current forces that influence urban realities in *La lucha de los pobres* (LLDLP). Since 1983, the actions and strategies undertaken in this settlement have yielded a legacy of grassroots organization, leadership, and collaborative work aimed at incremental development of land, housing, and basic infrastructure. This process also reaffirms the importance of comprehending urban informality beyond a mere planning problem, but rather as a fluid, diverse, and context-rooted "mode of urbanization" (Roy, 2005).

Despite these achievements, LLDLP residents continue to face structural challenges – including social and spatial exclusion, economic inequality, gender disparities, and pervasive uncertainty. These tensions are encapsulated in the following paradox of formal contributions and informal recognition: "We pay taxes, while they [authorities] marginalize us" (Male resident and founding member, interview, September 2022).

From a theoretical standpoint, the examination of urban agriculture interventions served as a lens to explore the intricate intersection of urban informality and planning. Consequently, this study contributes to the growing body of knowledge on urban agriculture as a multifunctional, complex, adaptive, and evolving practice embedded within informal urban systems. Although some of the barriers and limitations identified by participants situate these practices along the formal-informal 'continuum' (Roy, 2005), they are not primarily driven by 'survival rationalities' or needs (Watson, 2009). Instead, residents of LLDLP are motivated by benefits such as relaxation and wellbeing, caring for the environment, access to healthy and nutritious food, and reconnecting with ancestral knowledge – among other factors. Through these practices, residents actively produce urban spaces that foster creativity, agency, care, and sustainability.

Despite the historical and contextual analysis and the reviewed literature, my study revealed unexpected insights into residents' perceptions. For example, the environmental and social-cultural impacts of urban agriculture were considered less significant than anticipated. Similarly, crime mitigation was not considered crucial. In contrast, opinions regarding healthy and nutritious eating, and reconnecting with ancestral knowledge resonated more closely with my expectations. Notably, relaxation and wellbeing emerged as a central motivation. In terms of barriers, I had expected financial resources to be rated highest; however, the lack of physical space was unanimously identified as the most critical barrier.

From a practical stance, my research has revealed a valuable opportunity to explore the tensions and synergies between formal and informal systems, specifically through national and municipal planning frameworks and policy-making alongside bottom-up urban interventions, as examined in LLDLP. The "interface" where the "continuum" of these two systems meets and negotiates offers "zones" of innovation and collaboration among professionals, authorities, and residents. Consequently, urban agriculture interventions have the potential to inform more adaptive, participatory, and equitable planning strategies in low-income and informal communities across Latin America.

In summary, my empirical findings serve three key functions. First, they challenge the prevailing narratives in urban planning, government, and administration that reduce urban agricultural interventions to subsistence or crisis response. Second, they posit urban agriculture as an aspirational practice, thereby reaffirming that urban informality can be proactive – rather than merely reactive – and deeply rooted in cultural, ecological, and psychological values and interests. Third, these results call for a reevaluation of the emphasis placed on the technocratic-administrative and survival systems in Southern planning theories and practices, as proposed by Watson (2009). While these two systems were identified and analyzed in LLDLP through Roy's (2005) notion of the 'continuum'; a third rationality also emerged. This "non-survival" or "beyond-survival" rationality was situated within LLDLP's urban agriculture interventions interface, in conjunction with the technocratic-administrative rationality.

Based on these findings, I recommend that urban agriculture – along with other spatial interventions driven by non-survival factors in contexts of low-income and urban informality – be the focus of further study and be integrated into Quito's planning interface. This experimental integration should consider the dynamic interplay between technocratic-administrative and beyond-survival rationalities, rather than focusing solely on survival and technocratic-administrative systems. Such a reframing opens up new avenues for theorizing and practicing

urban planning in Latin America as situated, dialogical, and collaborative methodologies. Ideally, these processes would be incorporated into more flexible and dynamic urban planning models and policies.

This proposition is particularly relevant in light of the recently enacted Ordinance for Healthy Food Neighborhoods. While this policy represents a significant step in advancing urban agriculture in Quito, implementing this activity – as noted by Rodríguez Dueñas (2019, p. 31) – is “a process that takes time”. Therefore, a certain degree of caution is warranted regarding the potential benefits and unintended consequences of formalizing (or over-formalizing) existing urban agriculture interventions led by low-income and vulnerable households. Additionally, future urban agriculture planning must remain attentive to the risks of exclusion, depoliticization, and the erosion of grassroots agency that can accompany formalization processes.

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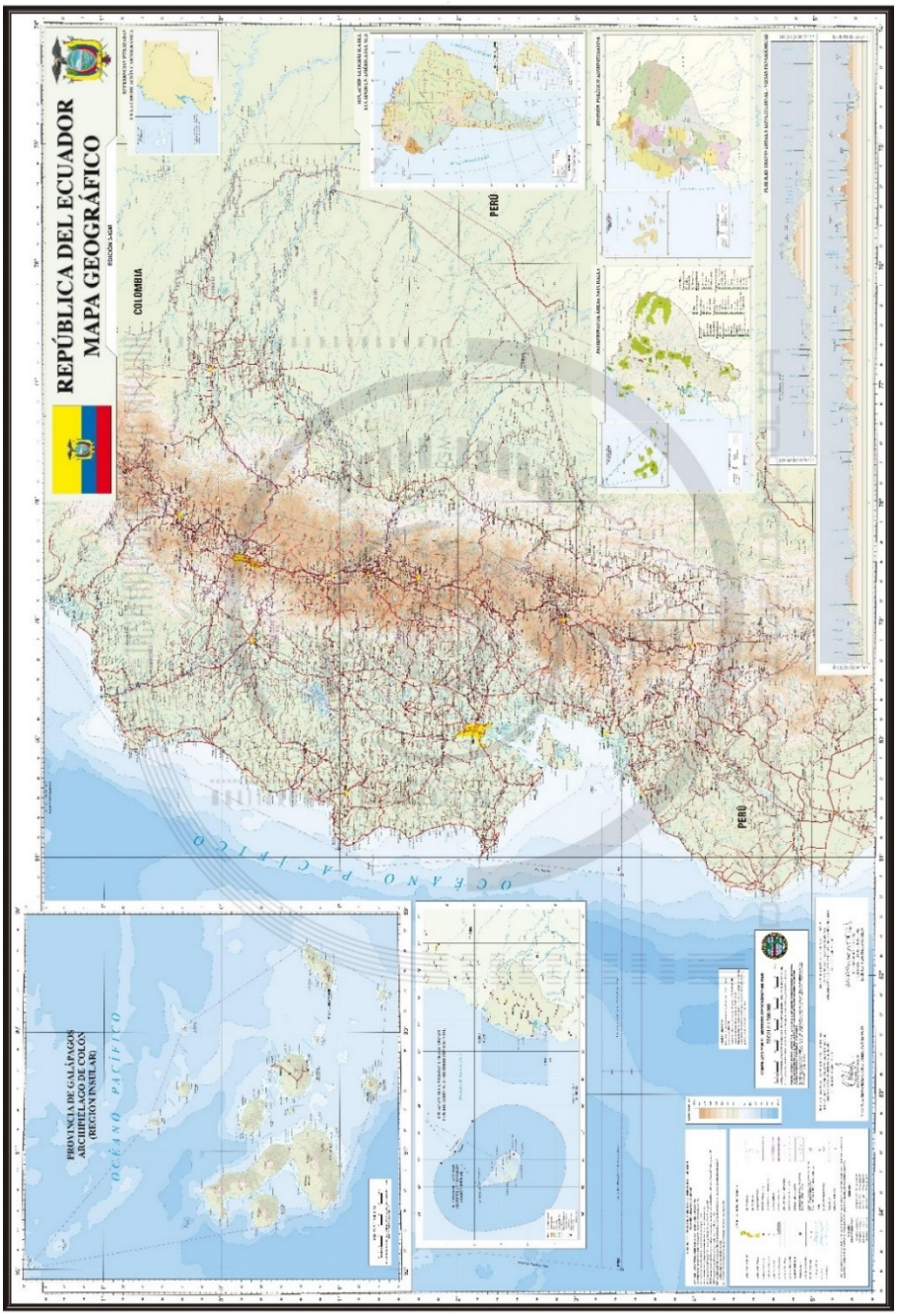
Annexes

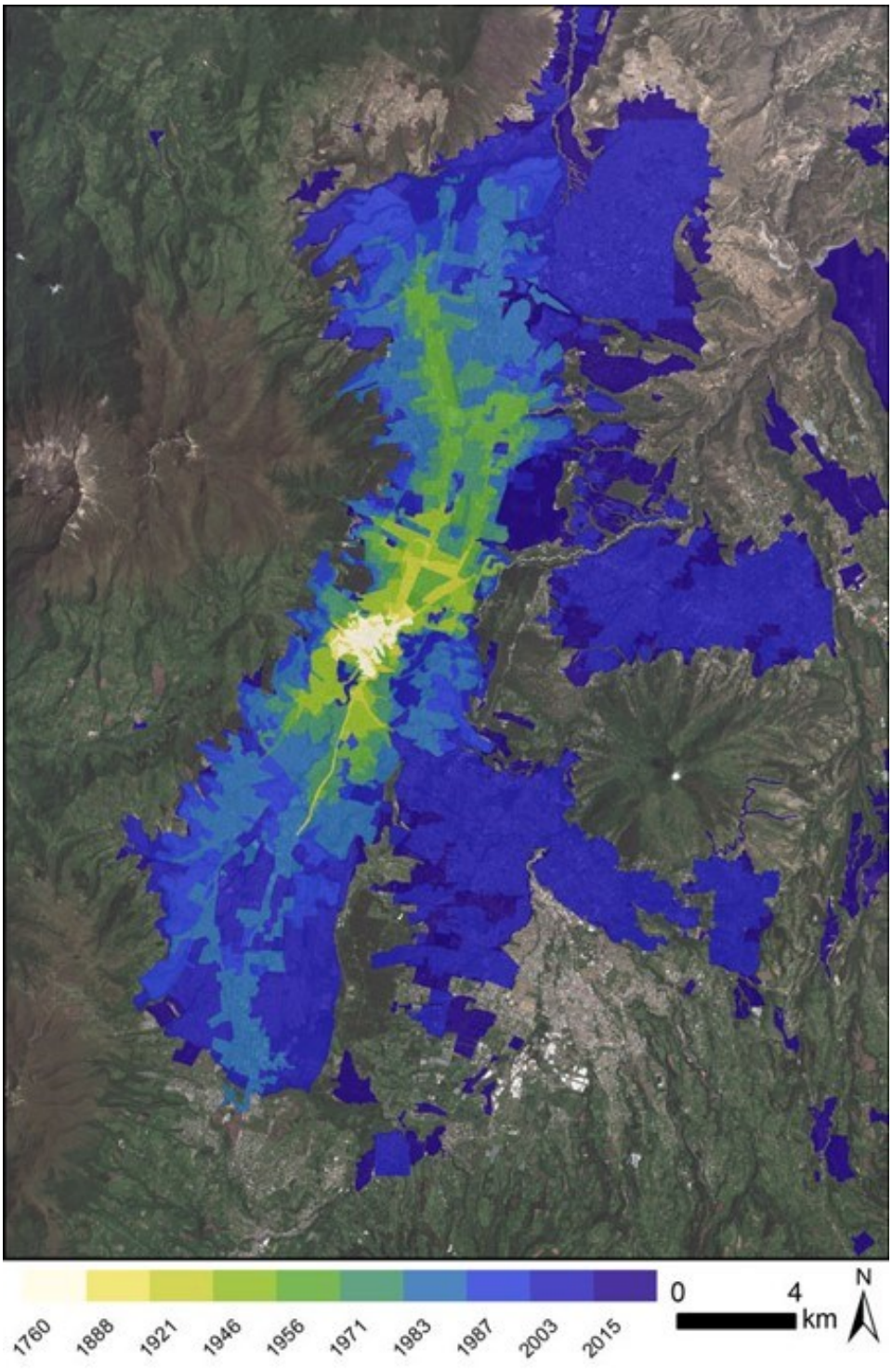
Annex 1 – Geographical map of the Republic of Ecuador

“Mapa geográfico de la República del Ecuador” (Instituto Geográfico Militar & Gobierno del Ecuador, 2017).



Annex 2 – Map of Quito's urban expansion (1760-2015)

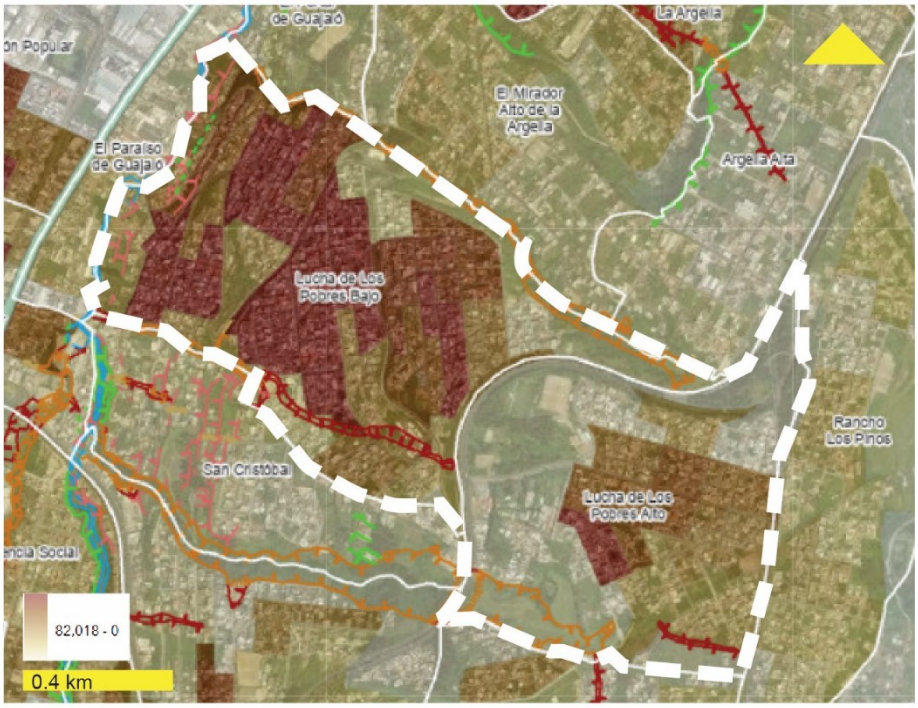
“Expansión de Quito de 1760-2015” (Sindicato Audiovisual, 2025).



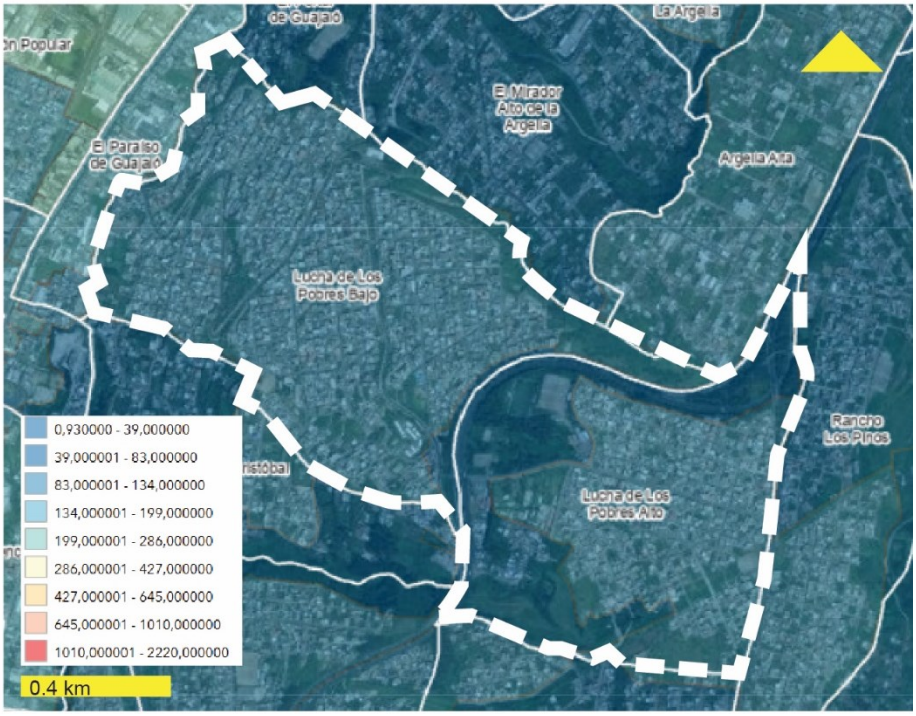
Datos: Gobierno Abierto (http://gobiernoabierto.quito.gob.ec/)

Annex 3 – LLDLP population density and land appraisal

Population Density



Land Appraisal (AIVA Context 2024-2025)



Note. Adapted by Gabriela Gonzales Faria, 2025. Source: (Secretaría de Hábitat y Ordenamiento Territorial, 2023).

Annex 4 – Ethical approval (CERAH)

Comité d'éthique de la recherche en arts et humanités (CERAH)

Bureau de la conduite responsable en recherche

Université de Montréal

Le 2 mai 2025

Faculté de l'aménagement - École d'architecture
Université de Montréal

Kathryn Furlong, professeure titulaire
Faculté des arts et des sciences - Département de géographie
Université de Montréal

Benjamin Herazo, conseiller en recherche
Faculté de l'aménagement - École d'architecture
Université de Montréal

Assistance de recherche : Gabriela Gonzales, étudiante à la maîtrise, Faculté de l'aménagement – École d'architecture Université de Montréal

OBJET :	Projet # 2021-2107 - CERAH-2021-105-D Approbation d'une demande de modification à un projet de recherche Titre : Enhancing the resilience of alternative food systems in informal settings in Latin America and the Caribbean through bottom-up initiatives in the built environment Financement : Centre de recherches pour le développement international (CRDI), Systèmes alimentaires résilients au climat, 109448-001

Bonjour,

Vous avez présenté au Comité d'éthique de la recherche en arts et humanités (CERAH) de l'Université de Montréal, en date du 29 avril 2025, une demande de modification à votre projet de recherche cité en objet.

Le formulaire F1-CERAH/CEREP/CERSC-Reprise de données-29486 portait sur la modification suivante :

- Composition de l'équipe de recherche: Ajout de Gabriela Gonzales, étudiante à la maîtrise, Faculté de l'aménagement – École d'architecture Université de Montréal

Après évaluation, le tout étant jugé conforme aux règles en vigueur en éthique de la recherche, j'ai le plaisir de vous informer que votre demande a été approuvée par le Comité.

Les documents que le CERAH a approuvés et que vous pouvez utiliser pour la réalisation de votre projet sont disponibles, sur Nagano, dans le dossier «Documents approuvés par le CÉR», sous l'onglet « Fichiers » de votre projet.

Le CERAH de l'Université de Montréal est désigné par le ministre de la Santé et des Services Sociaux aux fins de l'application de l'article 21 du Code civil du Québec. Il exerce ses activités en conformité avec la *Politique sur la recherche avec des êtres humains* (60.1) de l'Université de Montréal ainsi que l'*Énoncé de politique des trois conseils* (EPTC). Il suit également les normes et règlements applicables au Québec et au Canada.

Cordialement,

Pour la présidente du CERAH, Mariana Nunez,

Pauline Morin

Conseillère à l'évaluation éthique continue
Comité d'éthique de la recherche en arts et humanités (CERAH)
Bureau de la conduite responsable en recherche
Université de Montréal
3333, chemin Queen-Mary, bureau 220
Montréal (Québec) H3V 1A2

pauline.morin@umontreal.ca

Envoyé par :

Pauline Morin

Signé le 2025-05-02 à 15:01

Annex 5 – Consent form (SUSTENTO)

Intended for all participants (groups 1, 2 and 3) of SUSTENTO Survey (Herazo Cueto, 2021).

FICHA DE INFORMACIÓN ENCUESTA

[Para los participantes de categoría 1, 2 y 3]

Título de la investigación:	Fortalecimiento de la resiliencia de los sistemas alimentarios alternativos en asentamientos informales de América Latina y el Caribe mediante iniciativas locales en el ambiente construido.

Este estudio es financiado por el IDRC (Centro Internacional de Investigaciones para el Desarrollo) de Canadá. Es parte de un proyecto de investigación coordinado por la Universidad de Montreal (Canadá). En Colombia, esta investigación es organizada por la Facultad de Estudios Ambientales y Rurales de la Universidad Javeriana.

Investigador(a) o colaborador(a) que interviene en la entrevista:	BENJAMIN HERAZO Nombre y apellido del investigador Investigador, UNIVERSITÉ DE MONTREAL, Canadá Institución y Cargo

A) INFORMACIÓN A LOS PARTICIPANTES

1. **Objetivos de la investigación:** Este proyecto pretende explorar: (a) cómo las soluciones informales locales interactúan con los sistemas alimentarios y contribuyen a hacerlos más resilientes ante choques como los impactos del cambio climático y las pandemias; (b) cómo los sistemas urbanos en contextos de informalidad influyen en la resiliencia y vulnerabilidad de los sistemas alimentarios alternativos SAA y, al hacerlo, cómo influyen en la capacidad de las personas para hacer frente a los impactos del cambio climático; y (c) cuáles son las condiciones para escalar el impacto, transferir los resultados y superar las barreras de implementación hacia los SAA resilientes en América Latina y el Caribe.
2. **Participación en la investigación:** Su colaboración consiste en responder un cuestionario en línea o en una versión impresa que necesitará 20 minutos de su tiempo (15 preguntas de múltiple escogencia). Esta encuesta se centrará en su experiencia personal y comunitaria de su participación en los sistemas alimentarios en los asentamientos informales desarrollados en su área.
3. **Confidencialidad:** La información que proporcione será confidencial. Los datos se almacenarán en los ordenadores personales (o en un espacio seguro en la nube, si es posible) de los miembros del equipo de investigación, protegidos por una contraseña que sólo conoce el investigador o el asistente de investigación. Esta información personal (tanto en papel como digital) será destruida siete años después de la finalización del proyecto. Los datos serán guardados en la universidad. Sólo los datos que no lo identifican a usted se mantendrán después de esta fecha, durante el tiempo requerido para su uso.
4. **Ventajas e inconvenientes:** Al participar en esta investigación, usted contribuirá al avance de los programas de investigación sobre el análisis y fortalecimiento de iniciativas locales de sistemas alimentarios en asentamientos informales. La participación en esta investigación no presenta riesgos ni desventajas particulares. Los participantes no obtendrán ningún beneficio formal de su participación, pero tampoco se expondrán a riesgos significativos por tomar parte en el proyecto.
5. **Derecho de retirarse:** Su participación es completamente voluntaria. Usted es libre de retirarse en cualquier momento mediante notificación verbal, sin prejuicios y sin necesidad de justificar su decisión. Si decide retirarse de la investigación, puede comunicarse con el investigador al número telefónico que se indica a continuación. Si se retira de la investigación, la información que se ha recogido en el momento de su retiro será destruida. Sin embargo, después de que se inicie el proceso de publicación, será imposible destruir los análisis y los resultados de sus datos.

6. **Compensación o pagos:** Los participantes no recibirán ninguna compensación económica ni de otra índole.

Declaro que he dado toda la explicación del propósito, naturaleza, beneficios, riesgos e inconvenientes de esta investigación y he respondido conscientemente a las preguntas del entrevistado.

Nombre y apellido: BENJAMIN HERAZO

Firma del investigador: _____ Fecha: 24 ENERO 2022

Para preguntas relacionadas con la investigación o para retirarse del proyecto, puede ponerse en contacto conmigo a la Universidad de Montreal en el teléfono: o al correo electrónico: bj.herazo.cueto@umontreal.ca

Si tiene alguna inquietud sobre sus derechos o sobre las responsabilidades de los investigadores con respecto a su participación en este proyecto, comuníquese con el Comité de Ética de la Universidad _____ por correo electrónico a _____o por teléfono al _____o visite el sitio web: _____

Cualquier queja sobre su participación en esta investigación puede dirigirse al Defensor de la Universidad de _____, al número de teléfono _____ o en la siguiente dirección de correo electrónico: _____.

Una copia firmada de este ficha de información debe ser entregada al participante

Annex 6 – Survey for residents of LLDLP (SUSTENTO)

Encuesta seguridad alimentaria

Su colaboración será responder a este cuestionario, por este medio. Esto tomará aprox. 15 min. Esta encuesta se centrará en su experiencia personal y/o comunitaria sobre su participación en los sistemas alimentarios en su barrio.

* Indicates required question

1. Ha leído y está de acuerdo con la información proporcionada (consentimiento informado) en el correo de invitación a participar en esta encuesta ? Si no lo ha leído, puede leerlo aquí: http://www.grif.umontreal.ca/afs/consentimiento.pdf *

   Mark only one oval.

   - ◯ Si *Skip to question 8*
   - ◯ No

2. En qué región (o país) se encuentra? (Seleccione una respuesta) *

   Mark only one oval.

   - ◯ Colombia (Antioquia)
   - ◯ Colombia (Bogotá)
   - ◯ Colombia (Valle del Cauca)
   - ◯ Colombia (otras regiones)
   - ◯ Chile
   - ◯ Cuba
   - ◯ Ecuador
   - ◯ Centro-américa
   - ◯ Norte-américa
   - ◯ Other: _____

3. Podría decirnos en qué lugar se encuentra (Barrio, localidad, sector, comuna, vereda, villa, o asentamiento) ?

   _____

4. Con cuál género se identifica? *

Mark only one oval.

- ◯ Masculino
- ◯ Femenino
- ◯ Otro

5. Hace cuanto vive en su barrio?

Mark only one oval.

- ◯ Menos de un año
- ◯ Entre uno y dos años
- ◯ De 3 a 5 años
- ◯ 5 años o más

6. Considera que en los siguientes años seguirá viviendo en el mismo barrio?

Mark only one oval.

- ◯ Si
- ◯ No
- ◯ Tal vez
- ◯ No sé

7. Se identifica con alguno de estos grupos?

Mark only one oval.

- ◯ Población afrodescendiente
- ◯ Población indígena
- ◯ Extranjero (en el país donde habito)
- ◯ Ninguno de los anteriores

Seguridad alimentaria

Por favor mida las condiciones de la comida que consume de 1 a 5

8. En una escala de 1 a 5, la cantidad de comida que consumo es *

Mark only one oval.

	1	2	3	4	5	
Muy	◯	◯	◯	◯	◯	Mucha

9. En una escala de 1 a 5, la calidad de la comida que consumo es de: *

Mark only one oval.

	1	2	3	4	5	
Muy	◯	◯	◯	◯	◯	Muy buena calidad

Cultivo de alimentos

Indicador 2

10. En mi barrio se cultivan alimentos (frutas, verduras, legumbres, hortalizas, granos, tubérculos, u otros) *

Mark only one oval.

- ◯ Si
- ◯ No *Skip to question 15*
- ◯ No lo sé

Cultivo de alimentos

Por favor mida las condiciones del cultivo de alimentos en su barrio de 1 a 5

11. En una escala de 1 a 5, la frecuencia (veces al año) del cultivo de alimentos en mi barrio es: *

Mark only one oval.

	1	2	3	4	5	
Poc	◯	◯	◯	◯	◯	Muy frecuente

12. En una escala de 1 a 5, la calidad del cultivo de alimentos en mi barrio es de: *

Mark only one oval.

	1	2	3	4	5	
Muy	◯	◯	◯	◯	◯	Excelente calidad

13. En una escala de 1 a 5, el cultivo de alimentos en mi barrio genera un impacto ambiental: *

Mark only one oval.

	1	2	3	4	5	
Muy	◯	◯	◯	◯	◯	Muy positivo

14. En una escala de 1 a 5, el cultivo de alimentos en mi barrio contribuye a la vida social y comunitaria de forma: *

Mark only one oval.

	1	2	3	4	5	
Muy	◯	◯	◯	◯	◯	Muy positiva

Crianza local de animales para comer

Indicador 3

15. En mi barrio se crian animales para comer *

Mark only one oval.

- ◯ Si
- ◯ No *Skip to question 20*
- ◯ No lo sé

Crianza local de animales para comer

Por favor mida las condiciones de la crianza local de animales para comer en su barrio de 1 a 5

16. En una escala de 1 a 5, la frecuencia de la crianza local de animales para comer en mi barrio es: *

Mark only one oval.

	1	2	3	4	5	
Poc	◯	◯	◯	◯	◯	Muy frecuente

17. En una escala de 1 a 5, la calidad de la crianza local de animales para comer en mi barrio es de: *

Mark only one oval.

	1	2	3	4	5	
Muy	◯	◯	◯	◯	◯	Excelente calidad

18. En una escala de 1 a 5, la crianza local de animales para comer en mi barrio genera un impacto ambiental: *

Mark only one oval.

	1	2	3	4	5	
Muy	◯	◯	◯	◯	◯	Muy positivo

19. En una escala de 1 a 5, la crianza local de animales para comer en mi barrio contribuye a la vida social y comunitaria de forma: *

Mark only one oval.

	1	2	3	4	5	
Muy	◯	◯	◯	◯	◯	Muy positiva

Preparación alimentos con productos locales

Indicador 5

20. En mi barrio se preparan alimentos con productos locales *

Mark only one oval.

- Si
- No *Skip to question 35*
- No lo sé

Preparación alimentos con productos locales

Por favor mida las condiciones de preparación de alimentos con productos locales de 1 a 5

21. En una escala de 1 a 5, la frecuencia de la preparación de alimentos con productos locales en mi barrio es: *

Mark only one oval.

	1	2	3	4	5	
Poc	◯	◯	◯	◯	◯	Muy frecuente

22. En una escala de 1 a 5, la calidad de la preparación de alimentos con productos locales en mi barrio es de: *

Mark only one oval.

	1	2	3	4	5	
Muy	◯	◯	◯	◯	◯	Excelente calidad

23. En una escala de 1 a 5, la preparación de alimentos con productos locales en mi barrio genera un impacto ambiental: *

Mark only one oval.

	1	2	3	4	5	
Muy	◯	◯	◯	◯	◯	Muy positivo

24. En una escala de 1 a 5, la preparación de alimentos con productos locales en mi barrio contribuye a la vida social y comunitaria de forma: *

Mark only one oval.

	1	2	3	4	5	
Muy	◯	◯	◯	◯	◯	Muy positiva

Distribución de alimentos producidos localmente

Indicador 4. Los alimentos producidos localmente pueden ser resultado del cultivo o de la crianza de animales.

25. En mi barrio se distribuyen alimentos producidos localmente *

Mark only one oval.

- ◯ Si
- ◯ No *Skip to question 30*
- ◯ No lo sé

Distribución de alimentos producidos localmente

Por favor mida las condiciones de distribución de alimentos producidos localmente en mi barrio de 1 a 5

26. En una escala de 1 a 5, la frecuencia de distribución de alimentos producidos en mi barrio es: *

Mark only one oval.

	1	2	3	4	5	
Poc	◯	◯	◯	◯	◯	Muy frecuente

27. En una escala de 1 a 5, la cobertura de distribución de alimentos producidos en mi barrio es de: *

Mark only one oval.

	1	2	3	4	5	
Muy	◯	◯	◯	◯	◯	Excelente cobertura

28. En una escala de 1 a 5, la distribución de alimentos producidos en mi barrio genera un impacto ambiental: *

Mark only one oval.

	1	2	3	4	5	
Muy	◯	◯	◯	◯	◯	Muy positivo

29. En una escala de 1 a 5, la distribución de alimentos producidos en mi barrio contribuye a la vida social y comunitaria de forma: *

Mark only one oval.

	1	2	3	4	5	
Muy	◯	◯	◯	◯	◯	Muy positiva

Consumo alimentos producidos por familia / vecinos

Indicador 6

30. En mi barrio se consumen alimentos producidos por vecinos / familia *

Mark only one oval.

- ◯ Si
- ◯ No *Skip to question 35*
- ◯ No lo sé

Consumo alimentos producidos por familia / vecinos

Por favor mida las condiciones de consumo de alimentos producidos por familia / vecinos de 1 a 5

31. En una escala de 1 a 5, la frecuencia de consumo de alimentos producidos por familia / vecinos en mi barrio es: *

Mark only one oval.

	1	2	3	4	5	
Poc	◯	◯	◯	◯	◯	Muy frecuente

32. En una escala de 1 a 5, la calidad del consumo de alimentos producidos por familia / vecinos en mi barrio es de: *

Mark only one oval.

	1	2	3	4	5	
Muy	◯	◯	◯	◯	◯	Excelente calidad

33. En una escala de 1 a 5, el consumo de alimentos producidos por familia / vecinos en mi barrio genera un impacto ambiental: *

Mark only one oval.

	1	2	3	4	5	
Muy	◯	◯	◯	◯	◯	Muy positivo

34. En una escala de 1 a 5, el consumo de alimentos producidos por familia / vecinos en mi barrio contribuye a la vida social y comunitaria de forma: *

Mark only one oval.

	1	2	3	4	5	
Muy	◯	◯	◯	◯	◯	Muy positiva

Barreras

Por favor mida de 1 a 5 el impacto de las siguientes barreras para producir alimentos en su barrio

35. La falta de apoyo del municipio es una barrera para producir alimentos en mi barrio

Mark only one oval.

	1	2	3	4	5	
Tota	◯	◯	◯	◯	◯	Totalmente de acuerdo

36. La reglamentación municipal es una barrera para producir alimentos en mi barrio

Mark only one oval.

	1	2	3	4	5	
Tota	◯	◯	◯	◯	◯	Totalmente de acuerdo

37. La falta de recursos en la comunidad para hacer iniciativas es una barrera para producir alimentos en mi barrio

Mark only one oval.

	1	2	3	4	5	
Tota	◯	◯	◯	◯	◯	Totalmente de acuerdo

38. La falta de interés de mis vecinos es una barrera para producir alimentos en mi barrio

Mark only one oval.

	1	2	3	4	5	
Tota	◯	◯	◯	◯	◯	Totalmente de acuerdo

39. La falta de espacio para producir alimentos es una barrera para producir alimentos en mi barrio

Mark only one oval.

	1	2	3	4	5	
Tota	◯	◯	◯	◯	◯	Totalmente de acuerdo

40. La relación con mi pareja / esposo / esposa es una barrera para producir alimentos en mi barrio

Mark only one oval.

	1	2	3	4	5	
Tota	◯	◯	◯	◯	◯	Totalmente de acuerdo

41. La falta de formación y educación en agricultura y producción alimentaria es una barrera para producir alimentos en mi barrio

Mark only one oval.

	1	2	3	4	5	
Tota	◯	◯	◯	◯	◯	Totalmente de acuerdo

42. La falta de infraestructura como agua, electricidad, desagües, alcantarillado, etc. es una barrera para producir alimentos en mi barrio

Mark only one oval.

	1	2	3	4	5	
Tota	◯	◯	◯	◯	◯	Totalmente de acuerdo

43. La criminalidad (robos/inseguridad) es una barrera para producir alimentos en mi barrio

Mark only one oval.

	1	2	3	4	5	
Tota	◯	◯	◯	◯	◯	Totalmente de acuerdo

44. El factor económico (la comida producida localmente es más costosa que la comida que compramos en la tienda o el supermercado) es una barrera para producir alimentos en mi barrio

Mark only one oval.

	1	2	3	4	5	
Tota	◯	◯	◯	◯	◯	Totalmente de acuerdo

45. La falta de vías y medios de transporte es una barrera para producir alimentos en mi barrio

Mark only one oval.

	1	2	3	4	5	
Tota	◯	◯	◯	◯	◯	Totalmente de acuerdo

46. La falta de tiempo para encargarse de la producción de alimentos es una barrera para producir alimentos en mi barrio

Mark only one oval.

	1	2	3	4	5	
Tota	◯	◯	◯	◯	◯	Totalmente de acuerdo

47. ¿Conoce otras barreras para producir alimentos en su barrio?

Proceso

Por favor mida las siguientes condiciones en su barrio de 1 a 5 donde 1 equivale a muy poco y 5 equivale a mucho.

48. En una escala de 1 a 5, yo diría que en mi barrio hay suficiente conocimiento (saberes locales, experticias, experiencia) relacionado con: *

Mark only one oval per row.

	1	2	3	4	5	No lo sé
La producción local de alimentos						
La distribución local de alimentos						
La preparación local de alimentos						
El consumo local de alimentos						
La recolección y desecho local de alimentos						

49. En una escala de 1 a 5, yo diría que en mi barrio hay suficiente formación, tales como cursos, talleres y otras actividades formativas, relacionada con: *

Mark only one oval per row.

	1	2	3	4	5	No lo sé
La producción local de alimentos	◯	◯	◯	◯	◯	◯
La distribución local de alimentos	◯	◯	◯	◯	◯	◯
La preparación local de alimentos	◯	◯	◯	◯	◯	◯
El consumo local de alimentos	◯	◯	◯	◯	◯	◯
La recolección y desecho local de alimentos	◯	◯	◯	◯	◯	◯

50. En una escala de 1 a 5, yo diría que en mi barrio hay suficientes iniciativas, tales como programas de apoyo, proyectos y políticas públicas que ayudan a fomentar: *

Mark only one oval per row.

	1	2	3	4	5	No lo sé
La producción local de alimentos	◯	◯	◯	◯	◯	◯
La distribución local de alimentos	◯	◯	◯	◯	◯	◯
La preparación local de alimentos	◯	◯	◯	◯	◯	◯
El consumo local de alimentos	◯	◯	◯	◯	◯	◯
La recolección y desecho local de alimentos	◯	◯	◯	◯	◯	◯

Muchas gracias por su participación

Por favor oprima el el botón de "enviar" o "submit" para terminar la encuesta.

Annex 7 – Army presence in LLDLP during state of emergency

“Ejército ecuatoriano interviene en barrio “Lucha de los Pobres” durante estado de emergencia”. Two images obtained from Agencia Peruana de Noticias (2024).

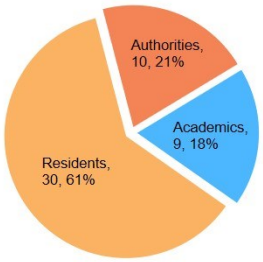
Annex 8 – Survey data sheet

Sociodemographic portrait of all participants:

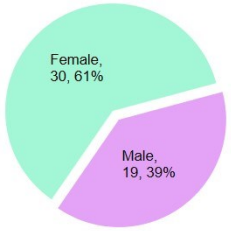
Data analysis and interpretation	**Survey:** Developed and applied by SUSTENTO junior and senior researchers in 2022	**All 3 groups of interviewees n=49 participants**	Figures developed by Gabriela Gonzales Faria, on April 16th, 2025.

Section 1: Sociodemographic portrait

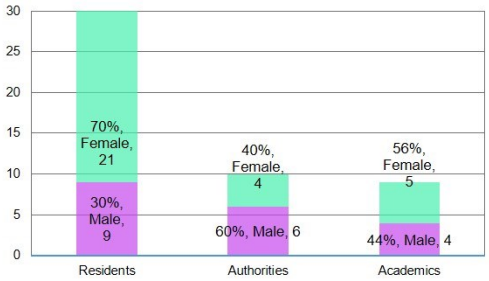
Q0: Categories of interviewees



Q2: Gender of total of interviewees



Q2: Gender of interviewees by categories



Q2: All interviewees, by category and gender