Urban agriculture projects under the constraints of Neoliberalism: networks, discourses and story-lines in Santiago, Chile

Ruth Sepulveda Marquez

Thesis submitted to UCL for the degree of Doctor of Philosophy

The Bartlett School of Planning
The Bartlett Faculty of the Built Environment
University College London
2021

Declaration of ownership

I, Ruth Nicole Sepulveda Marquez confirm that the work presented in this thesis is my own. Where information has been derived from other sources, I confirm that this has been indicated in the thesis.

11/06/2021

Abstract

Urban agriculture in Santiago emerged as a collaborative civil society initiative to raise awareness of the city's different social and environmental problems. However, it is unclear how Chile's neoliberal economic, political, and social scenario, which promotes corporatism, allowed the participation of actors in projects when they were constantly excluded from sustainability and urban planning decisions. Despite their disadvantaged position, community actors use urban agriculture as a fighting symbol to communicate their ideas about the environment and society. The analysis of the Santiago case is used to understand the connections formed between actors related to urban agriculture projects and to unravel their discourses and story-lines about society, the environment and traditions that have been taken for granted in the context of neoliberalism. Anchored in the Governance Networks and Discourse Analysis approaches, this research examines the networks, discourses and story-lines resulting from the emergence of urban agriculture projects in Santiago, Chile, linking social and environmental ideas with the neoliberal transformation driven by the development of new partnerships among actors. The findings suggest a strong relationship between civil society actors, as they see urban agriculture as a form of social connection rather than food production. The social aspect emphasises the circulation of knowledge and experiences between actors and the population outside the urban agriculture groups and modifies the perception and purpose of space and territory. Instead, there is a weak and sometimes broken connection between civil society and the state and private sector. The groups perceive those other actors use sustainability as a business for their economic benefits and are heavily influenced by capitalism and lack environmental awareness.

Impact Statement

Urban agriculture is complex and bridges many disciplines to provide multiple interpretations to understand the phenomenon. However, despite increased interest and research to characterise the movement in Santiago, little has been accomplished to understand the networks and discourses that motivate participation in a neoliberal context. This research highlights precisely urban agriculture by analysing groups as an object of study. In doing so, it offers a distinctive academic contribution that explores the structural relationships among participants and explains the discourses that co-evolved with neoliberalism through the combined lenses and methodologies of Social Science and Environmental Science.

Regarding the research topic, this research deepens the knowledge on urban agriculture in Santiago, providing new information on a topic with few studies in the Chilean literature and becoming a reference in understanding the modern agricultural movement in Santiago. Knowledge about the social connections and the discourses generated by the groups will greatly benefit researchers interested in urban agriculture in the Global South or Latin America, as this thesis serves to evidence the differences of this activity with the literature given by geographic location and historical background and provides a mixed movement that shares characteristics of the Global South and Global North. The mixed methods of analysis through Social Networks Analysis and Discourse Analysis show researchers the benefits of using complementary methods to obtain more robust and comprehensive results for urban agriculture or other subjects when information about the inclusion of actors to the networks, their meanings and interpretations are needed.

This research provides information to urban agriculture projects to understand their position within the network, plan their connections with other actors in the network, enhance their interests by selecting actors related to their social and environmental interests, and understand the weaknesses and strengths of their work in the territory. Likewise, this research may appeal to state organisations involved in urban agriculture unaware of the extent of networks at the municipality and regional level and the number of actors involved. The results could motivate them to be more active in supporting urban agriculture, designing strategies to support the groups with material

and monetary resources, and at some point, with the recognition of the activity in local planning instruments since the groups are numerous and well connected.

The multidisciplinary framework of this study opens several paths for additional research in Santiago and Chile. Researchers interested in the topic could further explore the impact of workshops and groups activities in the community; the impact of indigenous communities on discourses and practices of urban agriculture; the use of agricultural methods and techniques in allotments management; or the effects of the social movement in 2019 and pandemic of 2020 on urban agriculture where this thesis will function as a reference for the situation before the changes in Santiago.

Acknowledgements

I feel especially thankful to my supervisor, Professor Yvonne Rydin, who guided me in this research, supported me in my academic development, encouraged me when I felt lost and orientated me in the social sciences world. I appreciate every single comment she gave me because all of them led me to grow as a researcher. I also want to thank Professor Claudio de Magalhães, who provided me with valuable comments at the end of my thesis, providing the external perspective that I was missing.

I want to thank my colleagues of the Bartlett School of Planning, PhD colleagues, academic staff and administration who helped me in different forms during my programme. In special I am grateful to Jingyi, who has been the recipient of many questions since we started in the Bartlett.

I also want to thank all the people in Santiago that kindly agreed to cooperate in this study, allowing me to be part of their urban agriculture network. Their insight was extremely helpful for my understanding of their situation. Their stories provided me with all the material for this research. I hope I expressed their feelings and ideas with the care and respect they deserve.

A special thank is reserved for my parents and sisters, who have always supported me since I decided to continue my professional journey away from home years ago and have been my company during all this time. Pedro, Ruth, Kathy and Patricio, thank you. I thank Evelyn and Cristian, who opened their home during the months of fieldwork in Santiago. I am grateful to my friends Dan, Liz, Sofi and Debbie, who have listened to my complaints and have been part of this journey at different stages. Thanks to God for everything.

Finally, I want to recognize the importance of Nature, which is the main reason for this and previous research. It has been my base, my knowledge, and my continual source of inspiration. To you, my deepest gratitude.

Table of Contents

List of Figures

List of Tables

Abbreviations and Acronyms

AMGS	Metropolitan Area of the Great Santiago (*Area Metropolitana del Gran Santiago*)
DFL	Decree with Strength of Law (*Decreto con Fuerza de Ley*)
DL	Legal Decree (*Decreto Ley*)
DIGA	Directorate of Environmental Management (*Dirección de Gestión Ambiental*)
DIMAOS	Directorate of Environment, Cleanliness, Ornament and Sustainability (*Dirección de Medio Ambiente, Aseo, Ornato y Sustentabilidad*)
FONDEVE	Neighborhood Development Fund (*Fondo de Desarrollo Vecinal*)
OGUC	General Urban Planning and Construction Ordinance (*Ordinanza General de Urbanismo y Construcciones)*
LGUC	General Urban Planning and Construction Law (*Ley General de Urbanismo y Construcciones*)
MINVU	Ministry of Housing and Urban Development (*Ministerio de Vivienda y Urbanismo*)
MOP	Ministry of Public Works (*Ministerio de Obras Públicas*)
NPUD	National Policy of Urban Development (*Política Nacional de Desarrollo Urbano*)
SDG	Sustainable Development Goals
SENAME	National Service for Minors (*Servicio Nacional de Menores*)
SEREMI	Regional Secretary of a Ministry (*Secretaría Regional Ministerial*)
SERVIU	Service of Housing and Urban Development (*Servicio de Vivienda y Urbanismo*)
UAPs	Urban agriculture projects (*Proyectos de agricultura urbana*)
UPE	Urban Political Ecology

Chapter 1. Introduction

1.1 Introduction

Urban agriculture projects (UAPs)[1] have emerged in response to the community's growing need for contact with nature, food, and social connections in cities. Communities have organised to emphasise the importance of green spaces and natural areas. They demand actions on urban issues related to the defence of the inhabitants' quality of life and improvements in their neighbourhoods and municipalities' social and physical conditions to develop as a sustainable city (Bresciani, 2006; Vásquez et al., 2016). As such, cities are becoming areas where new ideas about nature are displayed. In Chile, new discourses are promoted to mitigate environmental and social problems and open up an alternative to neoliberalism that affects nature, land use and urban planning (Vásquez et al., 2016). Due to the work of organisations and NGOs, citizens are more aware of the profound effects of neoliberalism in urban form and space (Barron, 2016), which leads them to question the privatisation of goods and services such as health, education, housing and natural resources, revealing a socio-environmental crisis that has disconnected communities from their territorial identity (Almuna et al., 2018). Demands for social actions from the community have allowed the emergence of traditionally marginalised actors concerned about social and

---

[1] This research will use the term 'allotment' as a synonym of urban agriculture since it is the closest term to the Spanish words' huerta' or 'huerto' used by the interviewees. Huerta or huerto refers to the small land destined for the cultivation of vegetables and fruit trees. Urban agriculture is not able to fully encompass the meaning expressed by the Spanish word. In this research, 'allotment' will also be used to capture the vision of the interviewees.

environmental problems (Zunino, 2014). UAPs developed from these concerns to generate spaces and connections with actors to take back their right to the city through direct opposition to the prevalent neoliberal discourse that has penetrated different aspects of the nation's social and political life. They contradict the corporatism that characterises the social partnership on decision-making and reconfigures the relationships between the actors' connections within and discourses on the neoliberal society (Rodríguez, 2018).

The neoliberal system integrated into Chilean society in the 1970s changed the relationship dynamics between social actors when the state transferred part of its responsibility to the market (Arenas and Hidalgo, 2014; Undurraga, 2015), privatising most of the public productive capacity and dismantling the developmental state (Garreton, 2017). From that moment on, the state became a service provider. It reduced its role as guarantor of citizens' rights (Azócar et al., 2007; López-Morales, 2010; Canteros, 2011), giving priority to the private sector over public economic actions (Garreton, 2017). This drastically changed the role of civil society. From highly involved participation to a repressed population under the dictatorship to an actively self-motivated citizenry in the democracy, civil society has gone through different stages in recent decades due to the country's political changes (Cumming, 2015; Somma and Bargsted, 2015; López-Morales and Slater, 2016). This situation has been accentuated by the state preference for an economic technocracy[2] and an individual conceptualisation of the self and society (Rosso, 2014; Zunino, 2014; Herrmann and van Klaveren, 2016; Ruiz, 2016), which hinder community organisation and participation in decision-making spaces. Indeed, while the private sector and economic elites can persuade the state to elaborate policies for their benefit, civil society has to accept the limited spaces of participation offered by the state to show their adherence to or discontent with the urban policies (Rosso, 2014). As a result, the influence of civil society in public policy is reduced. Most social organisations are discouraged, and civil society voices that do not respond to an economic technocracy are excluded, especially those who seek to protect areas with sentimental values (Zunino and Hidalgo, 2009b).

---

[2] Technocracy refers to a group of agents that, due to their academic formation, constitute a technical and political body inside of governmental institutions or in private agencies.

The lack of civil society participation in decisions and local community activities reflects a disarticulation of the social fabric (Galdames and Oyaneder, 2013). Citizens are not only excluded from decision-making processes but also suffer the results of practices that promote individualism, consumerism, and apathy eroding neighbours' cooperation and integration to networks (Vega, 2013). In this context, urban agriculture is perceived to redefine the urban context since it reconfigures the citizens' relationships and social practices (Calcagni et al., 2013; Vega, 2013). UAPs are seen as a major paradigmatic shift, which seeks to construct a new development model that is more environmentally friendly and that intends to rescue spaces for encounters, community strengthening and the rediscovery of solidarity practices (Rodríguez, 2018). The inclusion of territorial sovereignty implies recognising a place's inhabitants, inserted in a network of relationships of a particular ecosystem. It also allows new interpretations of the world based on the understanding that integrates humanity and nature and their interrelations (Almuna et al., 2018). In this territory, each of its participants has the power to decide on its construction and significance. The fact that this decision is based on their knowledge and what they learn from their peers is what promotes a new way of understanding their own world (Almuna et al., 2018). These instances have become true intercultural experiences for learning, respecting and strengthening the fabric that sustains a local social system (Ibarra et al., 2018a).

In a city like Santiago with a strong neoliberal influence that diminishes the state's power and deprives civil society of public participation, it is unclear how the current Chilean neoliberal economic and political scenario has permitted civil society's participation and collaboration in UAPs. Neoliberal discourses continue to be strongly present in planning decisions, the state still has a strong link with the market, and the private sector continues to influence the modifications of legal documents to their benefit. Heitmann (2014) recognised that to strengthen urban agriculture in Chile, common interests, worries, and characteristics of the different allotments should be identified to generate more connections and establish Santiago's[3] real collaborative

---

[3] In Chile, several administrative divisions have the name Santiago. The commune of Santiago is administrated by the Municipality of Santiago and is headed by a mayor. This commune is part of the Santiago Province, headed by a provincial delegate, a subdivision of the Santiago Metropolitan Region headed by an Intendant. Despite these classifications, the term 'Santiago' will be used here to refer to the Metropolitan Area of the Greater Santiago that includes the commune of Santiago and other 51 communes, which together comprise the majority of the Santiago Province and some other provinces.

networks. Therefore, the call for addressing UAPs' networks between actors and the discourses and story-lines surrounding them in a neoliberal context is necessary to understand their dynamics. Urban agriculture has seldom been explored in Santiago (Heitmann, 2014; Ibarra et al., 2018b) mainly through a few dissertations (Contesse, 2014; Saldías, 2016; Astudillo, 2017; Moraga, 2018; Flores, 2019) and two books (Fuentes, 2014; Ibarra et al., 2018b), so the specific structure of the networks of actors related to UAPs and their discourses have not been fully explored. Thus, this research aims to advance the understanding of neoliberalism's influence on the emergent UAPs, networks, and discourses by looking into the social and environmental dimensions of the UAPs. Specifically, this thesis explains the co-evolution of emerging UAPs with the networks and discourses of actors with respect to neoliberalism.

1.2 Research Questions

The thesis aims to understand the role of emerging UAPs through the networks and discourses of actors facing challenging social and environmental situations with respect to neoliberalism. This research focuses on the explanatory possibilities offered by the concept of governance networks and discourse analysis to understand UAPs in a neoliberal context and the modifications that those projects have caused in the social structures and actors' roles. Thus, the question that guides this research is: *How has the emergence of urban agriculture projects in Santiago de Chile co-evolved with the networks and discourses of actors with respect to neoliberalism?*

The answer to this question explains the co-evolution of emerging UAPs with the networks and discourses of actors with respect to neoliberalism. The analysis of networks, discourses and story-lines will reveal the actors who are consolidating the projects, how they are connected and why they are involved. While networks will identify actors and connections between actors and projects, discourses and story-lines will provide information about motivations, objectives and visions. Understanding the dominant discourses used by the actors in UAPs will explain why the selected projects are created and how they are maintained over time in a neoliberal context that is always present. Given that the goal is to explain UAPs through the theoretical lens of governance networks and discourse analysis, the network structures and the actors'

discourses are examined through three sub-questions, two exploratory and one explanatory.

This research's first exploratory sub-question is: *What are the roles and networks of the different actors involved in urban agriculture in Santiago?*

Answering this question has four objectives. First, to identify the actors related to urban agriculture in Santiago. Second, to locate actors who collaborate with UAPs within social networks. Third, to lay the foundation of the UAPs networks and roles to answer the second and third sub-question of this research. Fourth, to understand civil society's, the private sector's and state actors' role in the networks and the reasons for forming relationships.

This research's second exploratory sub-question is: *What are the main discourses and story-lines co-produced by the actors involved in urban agriculture and their relation to neoliberalism?*

This sub-question identifies the discourses and story-lines produced by UAPs after identifying the social networks since it is considered that discourses are affected by the networks, the actors and the context where they are co-produced. Understanding the dominant discourses used by the actors in UAPs will explain the reasons for creating the projects and their permanence over time in an ever-present neoliberal context. Furthermore, this sub-question reveals perceptions of UAPs on the city's social and environmental situation and the neoliberal economic system.

This research's main explanatory sub-question is: *How have the networks and discourses of urban agriculture projects in Santiago been affected by neoliberalism?*

After the first and second sub-questions laid the foundation by identifying the social networks formed by actors related to UAPs and the discourses produced and circulated on those networks, this sub-question explains how networks and discourses operate their social and environmental work under neoliberalism.

1.3 Research Approach

This thesis explores UAPs networks and discourses in relation to neoliberalism, taking a case-study approach. The case-study is Santiago, a group of municipalities located in Chile's metropolitan region. Santiago, the capital city of Chile, is recognised as one of the earliest neoliberal experiments and is characterised by a profoundly segregated area where prosperous neighbourhoods coexist with impoverished ones that are significant challenges for the sustainable development of the city (Garreton, 2017). The answer to the research sub-questions is provided by using two complementary methods. First, the network structure is investigated using the theoretical and methodological procedures of Social Network Analysis (SNA). Second, the discourses were identified using discourse analysis and thematic analysis. Data was collected relying on interviews and documentation. The network's operation is explained from the perspective of the UAPs participants of the social network, relying on semi-structured interviews. The methodology used in this thesis is discussed in detail in Chapter 4.

1.4 Key argument of the thesis

This thesis's key argument is that the emergence of UAPs has built a network of socially and environmentally-aware actors interested in working in the city despite the challenging conditions produced by neoliberalism. Social networks are established intentionally with actors that share common interests but varying in strength, trust and reciprocity, whether they are formed with civil society, the state or the private sector. UAPs and the networks promote the production and circulation of discourses, knowledge, experiences and expertise between the members and the groups, forming a knowledge network. They emphasise the community's empowerment, the construction of community and social networks between local actors, and the resistance against the socioeconomic system present in the country. Furthermore, UAPs creates networks and discourses in a complicated political setting that lacks organisations and legislation for environmental work that could support them. The groups faced a socioeconomic system that favoured corporatism instead of the participation of all actors. In sum, UAPs form networks and discourses about social

and environmental problems despite the challenges imposed by the neoliberal influence and offers alternatives to the market logic to overcome it.

This thesis contributes to knowledge in the following ways. First, it questions the emergence and permanence of urban agriculture in a rooted and constantly present neoliberal socioeconomic context. Second, it provides empirical evidence on some of the community's actions to achieve empowerment and social presence despite representativity and participation problems. This thesis also makes theoretical contributions to the literature on governance networks and discourse analysis. By recognising culturally embedded practices in the operation of social networks and urban agriculture practices, as forms of trust and reciprocity, this thesis expands its analysis of the Santiago context to the exploration of lay knowledge form from traditional practices. This thesis also contributes to understanding the relationships established by UAPs at different levels in a neoliberal society where community initiatives are often ignored while understanding the reasons for the connections that sustain those networks. This investigation also makes methodological contributions. The analysis of UAPs networks and discourses using the mixed method is innovative. Using social network analysis and discourse analysis to understand the relationships and motivations provides a robust mix of methods. By investigating the structure of social networks and their operation, and the discourses and story-lines that emerged from the UAPs, this thesis enhances the understanding of urban agriculture's social dimension in a neoliberal context. This thesis contributes to planning practice by providing a case-study that shows the actions and relationships that UAPs can use to forward their development and overcome inherent conflicts to work towards their permanence in the territory. In conclusion, the use of social network analysis and discourse analysis approaches help to understand the work accomplished by UAPs and informs the challenges that public policies need to meet to integrate urban agriculture.

1.5 Thesis Outline

This thesis will be structured into nine chapters, each of them combining descriptive and analytical elements. It will be organised to provide a journey through the research process, capturing the multiple aspects of the research, from theoretical and conceptual enquiries, methodological definitions, contextual research to the more reflective

aspects of the results. The first four chapters (introduction, background, theory, methodology) will be founded mainly on discussions based on a literature review and theoretical reflections; from chapter five onwards, they will combine information derived from fieldwork and secondary data with theory and analytical reflections.

Chapter 2 develops the theoretical framework to study the intertwining of urban agriculture and neoliberalism in Santiago's planning. The literature addressing both terms is reviewed and critically discussed. The chapter explores urban agriculture setting out the main literature describing the origins and the different purposes that differentiate allotments and participants. A difference is made between urban agriculture in the Global South and Global North, given the literature's characteristics that associate the first with more food-oriented needs and the latter with more social and environmental interests. Building on that, a description of urban agriculture in Chile is provided to contextualise the activity in a specific location and period, briefly mentioning the current legislation. The chapter also presents neoliberalism in the Chilean context explaining its implementation and the effects on society, especially on social relationships between actors. The chapter closes with a reflection on how the literature review contributes to establishing the research's conceptual framework.

Chapter 3 discusses the key elements that form the research: governance networks and discourses. The literature addressing both terms is reviewed and critically discussed. The chapter draws out the theoretical implications of analysing governance networks and discourses in the context of neoliberalism. The chapter explores the emergence of governance as a response to traditional government structures and examines the authors' opinions on the so-called 'shift' from government to governance. Networks are the key element to understand governance and the basic unit of our society, so their characteristics are explored and linked to power, leadership and trust-building. Following this, discourses are described using the most popular definitions of discourses in the environmental, political literature provided by Maarten Hajer and John Dryzek. The chapter focuses on the definition proposed by Hajer and describes story-lines as discourse creators, discourses as channels of power and discourse coalitions as sets of story-lines. A focus on knowledge is used to complement analysis of networks and discourses, considering its formation from social learning and through community of practices. The chapter closes with a reflection that synthesises how the

literature review's critical analysis contributes to establishing the conceptual framework for the thesis.

Chapter 4 sets out the methodology used in this study. It starts by explaining the case study with the embedded units' approach and mixed-methods approach used to obtain Santiago's data. The chapter then introduces the case study, the research strategy and the sampling techniques used to unravel the social network and discourses related to the units of analysis. The data collections methods detail the activities undertaken for this research: a desk-based stage used for selecting participants and the research adopted; fieldwork to collect empirical data; and processing of data, which involved the analysis of the collected data and the writing of the results. The data analysis describes thematic analysis, discourse analysis and SNA, which identify patterns, discourses and relationships in the data. The chapter concludes with a description of the methods used to collect and analyse empirical data.

Chapter 5 presents the networks and discourses around the social aspects of urban agriculture. The chapter is divided into two parts. The first part analyses the social networks of UAPs. In this part, an analysis of social networks is presented, identifying and analysing the networks formed at different scales: within, between and outside UAPs. Considering the neoliberalism context that frames the research, the emphasis here is on identifying the connections that shape the interactions between actors related to UAPs from the country's neoliberalism. It is argued in this chapter that the networks formed between UAPs are more robust, more durable and easier to maintain than those formed with the state or private sector, which are weaker, temporary and conflictive. It is found that UAPs are trying to develop a low-level range of influence to impact local neighbours and actors. The second part analyses the social discourses produced and reproduced by the different UAPs, which corresponds to some reasons for forming the allotments. It is found that urban agriculture was formed with a social objective and is used as a form of resistance and empowerment against the current neoliberal socioeconomic model established in Chile.

Chapter 6 explores knowledge and environmental awareness around urban agriculture in Santiago. The chapter is divided into two parts. The first part focuses on knowledge and expertise produced and circulated by UAPs through the networks, emphasising the recognition of indigenous and rural communities. It is found that

groups gather knowledge through members' experience with an agriculture background and workshops about sustainable, social and political topics led by UAPs. The second section analyses UAPs main ideas about environmental and sustainability awareness of civil society, the private sector, and the state to understand their positions and actions concerning the environment. UAPs provide environmental knowledge and awareness through their activism since they are interested in actively educating the community. Civil society is perceived as involved with sustainable practices, but their knowledge is still inadequate to produce relevant changes. UAPs have a negative perspective of the interests of the state and the private sector in sustainability since they consider they are less focused on environmental protection and more on economic interests.

Chapter 7 discusses the discourses of territory and societal challenges. The chapter is divided into two parts covering urban agriculture's position under different understandings of the territory. The first part focuses on state planning and the municipal-level organisation that oversees green areas and the environment. It explains the networks' social and economic complications in using the territory for those UAPs. It is found that the private sector has a great influence on the use of the land since it is perceived as a consumer good. The lack of clear legislation on green areas complicates urban agriculture since the land is not always used for green areas, and there are limited activities that can be carried out in those spaces; unfortunately, urban agriculture is not one of them. The second part analyses the main discourses produced and reproduced around space, one of the elements that conform to the territory. This section describes the different social challenges that the use of urban agriculture can tackle. Problems such as inequality, temporality and security affect the community's life and their perception of space. It was found that urban agriculture can work to improve the perception of space and connect people to the territory.

Chapter 8 discusses the findings of the thesis. The chapter is divided into three parts. The first part argues about the differences between agriculture in urban and rural spaces in Chile and the Global South and Global North. It also includes references to the inclusion of knowledge from indigenous and rural communities that increases the groups' knowledge and experiences. The second explores the broken connections between the groups and the state and private sector that limit urban agriculture's work

in the territory. It also considers the effect that the legality of space has on the permanence of UAPs in the territory. The third part discusses environmental justice in Santiago arising from the reframing of space by UAPs. This section also refers to the effects on security, inequality and understanding of space.

Chapter 9 is the final chapter of this thesis. It presents the conclusions by synthesising the findings in a narrative of how UAP networks and actors' discourses have been influenced by neoliberalism in Santiago and how UAPs have changed the neoliberal perception of relationships, social systems, and territory. The chapter draws out the conclusions related to each sub-questions and the thesis's core question, and its contribution to knowledge on Santiago's urban agriculture. It also discusses the potential planning and policies reflections for using urban agriculture. Concluding remarks cover the state of urban agriculture after the fieldwork.

Chapter 2. Urban agriculture and Neoliberalism in Chile

2.1 Introduction

This chapter identifies the main gaps in the literature that provide a basis for formulating the research about UAPs in a neoliberal context through a literature review of the theorisation and scholarship on urban agriculture and neoliberalism. The review is framed regarding how urban agriculture develops under neoliberalism and its effects on the actors' relationships affecting urban agriculture. This chapter explores urban agriculture to situate the research in the main literature. It starts by examining urban agriculture in a general context, describing the origins, the characteristics of the different allotments, and participation processes. Once the general features have been defined, the chapter explains some of the differences and similarities that the literature establishes in urban agriculture in the Global South and Global North. It then focuses on urban agriculture in Chile, characterising the groups present in Santiago and the relevant legislation to address the issue, which works as a bridge for the section on neoliberalism that follows. In the second section of the chapter, I describe how neoliberalism was implemented in Chile and the effects caused in society, especially referring to those generated in the actors' roles and relationships. The chapter closes with a reflection on how the literature review contributes to setting the conceptual framework for this research.

2.2 Urban agriculture

Agricultural production in urban areas is not a new phenomenon. Since the origin of agriculture, families have cultivated allotments around their homes to produce their food (Urra and Ibarra, 2018). Even during periods when farms were relegated outside cities, such as in ancient times and the Middle Ages (Fuentes, 2014), some portions of land remained inside city walls for allotments and animals in case of military siege (Madaleno and Gurovich, 2004). Agriculture in urban areas was perceived as a regular subsistence activity. However, after the spread of the Industrial Revolution, the main separation occurred when agriculture was used for large-scale food production to feed the growing urban population. Farms within cities began to disappear to make space for dwellings, and agriculture moved to outer areas where the land could sustain the new agriculture practices. Despite previous events, the practice of agriculture within city limits returned on a larger scale in some countries in response to a different crisis. In countries such as the United States, United Kingdom and Germany, War Gardens and Victory Gardens emerged during World War I and World War II (Fuentes, 2014) in backyards and vacant lots to reduce pressure on the public food supply and help win the war, serving as a "metaphor of freedom" during the period (Thornton, 2018, p.5). In La Habana, Cuba, an agricultural revolution began after a food crisis produced by shortages of fuel and agrochemical inputs after the collapse of the Soviet Union, its principal trading partner (Fuentes, 2014; Hudson et al., 2019). In other countries, continued rural-to-urban migration returned agriculture to urban areas. However, urban agriculture did not wholly disappear from the cities; but was mostly hidden in the properties of the working class and immigrants, who were dedicated to growing vegetables and raising animals in their homes (Horst et al., 2017). Only in the late 20th century did private spaces where allotments were cultivated became more visible, showing that cultivated plots existed almost everywhere during almost every era (Madaleno and Gurovich, 2004).

Urban agriculture, "the art of growing crops and raising livestock in cities and their peripheries" as described by Reynolds and Cohen (2016, p.3), is widely practised in public (roadsides and parks), private (school, hospitals and prisons) and buildings (roofs, balconies, terraces and walls) spaces (Contesse, 2014; Astudillo, 2017; Dieleman, 2017; Horst et al., 2017). Many people approach urban agriculture for

different purposes; however, food production for domestic consumption and economic income is the most common (Horst et al., 2017). The use of allotments for food helps residents control food security and social and environmental problems by providing food, jobs, education and neighbourhoods improvements (Contesse, 2014). Despite the well-known strategy associated with food production and food justice (Horst et al., 2017), the literature also related allotments to social and environmental benefits. Bach and McClintock (2020, p.2) explain that, for many, urban agriculture "arose in response to the negative social, environmental, and economic impacts of the global corporate food system". The authors describe urban agriculture as a political act capable of destabilising the capitalist organisation of space and the social relations that constitute it. Urban agriculture is seen as a potential vehicle for broader social changes and alternatives generated during everyday social-natural interactions (Bach and McClintock, 2020). However, allotments do not have a single goal that summarises everyone's work. They could include a combination of social, environmental, and economic issues within their work or focus on a single major issue.

Urban agriculture includes a wide range of topics and areas that allows them to provide numerous impacts to individuals and communities, potentially becoming a valid option to contribute to the UN Sustainable Development Goals (SDG). Indeed, urban agriculture contributes to global food production (SDG 2) by providing an alternative food supply in economic crises or producing vegetables with fewer chemicals for people seeking a healthier lifestyle. It provides a source to combat poverty (SDG 1) for families who need to reduce their food expenditure or want to sell surpluses, and by creating jobs (SDG 8) contributing to gender equality with the inclusion of women in allotments (SDG 5). In this way, urban agriculture helps the environment with its careful use of water and its predisposition to recycle organic waste as nutrients for allotments (SDG 12). Most of the work of urban agriculture helps to lessen impacts on biodiversity and ecosystem services (SDG 15) using a diversity of crops, which leads to the provision of habitats for birds and insects. It also helps as a source of climate action (SDG13) by reducing the use of pesticides or fertilisers that damage the environment and flora and decreasing emission during transportation due to the proximity of allotments to consumers and the carbon captured by the vegetables. Other contributions refer to improving the physical and mental health of the participants and communities due to the cultivation work carried out in the allotments and the provision

of green areas and rest spaces to connect with nature (SDG 3). The creation of those green spaces has relevant impacts on the community due to the formation of networks and flows between social actors seeking to improve the sustainability of the cities (SDG 11).

Due to the inclusion of nature in the cities, urban agriculture reveals the dichotomy between nature and society, which has been framed as separate concepts in modern academia discourses (Cook and Swyngedouw, 2012; Classens, 2014; Pietta and Tononi, 2021). In views of urbanisation and the production of urban space, cities are often considered to be in opposition to nature (Ekers and Prudham, 2015). However, in the Urban Political Ecology (UPE) literature, nature is a conjoined socio-ecological process that does not exist independently and includes a social approach by reconsidering human-nature relationships (Ekers and Prudham, 2015; Pietta and Tononi, 2021). UPE is a conceptual approach that understands the complex range of political, economic, social, and ecological processes between nature and society that often results in unequal and crippling socio-natural power relations and inequitable spaces, both materially and discursively (Heynen, 2013; Classens, 2014). According to Sanzana (2016, p.28), UPE "provides a theoretical background in which the synthesis of neoliberalism urbanisation, urban greening and ecological urbanism can be properly addressed". The concern of scholars has been to interrogate the neoliberal development in a context of capitalist accumulation, power inequality, and environmental transformation through which urban space is configured, distributed and accessed (Cook and Swyngedouw, 2012). UPE scholars believe that nature has become urbanised and used in the process of creating cities and therefore want to challenge the current understanding of naturalised ecologies and understand how in this context, cities are being produced as socio-nature, who gains or losses from these relationships and who benefits or suffers from the processes of metabolic change (Zimmer, 2010; Heynen, 2013; Angelo and Wachsmuth, 2015; Pietta and Tononi, 2021).

The main concern of UPE scholars has been how urbanisation and cities rely on the assemblage, intertwining, and transformation of biophysical elements into commodities through the exploitation of human labour and the tracking of the flows of these commodities into and through cities understood as a metabolic process (Cook

and Swyngedouw, 2012; Angelo and Wachsmuth, 2015). These metabolic processes are deeply embedded in social, political, and economic systems in which they take place and cannot be understood in isolation. In this rethinking of lived urban spaces in social and ecological terms, urban agriculture could be seen as a means for individuals to re-engage with urban metabolism, addressing the disconnection that isolates people from the resource flows that power the city (McClintock, 2010). The contribution of urban agriculture is guided by principles of social justice and autonomy from corporate capture, which require unpacking the political condition and consequences of knowledge production and use. The inclusion of UPE and urban agriculture in the debates could facilitate conversations between different pieces of knowledge to build a common ground between disciplines and practices.

However, within the scholarship formed around UPE, concerns have been raised about the relationship between neoliberalism and socio-environmental change about environmental, political and governance issues in the context of capitalist crises (Ekers and Prudham, 2015). Specifically, on how capitalism has been able to constantly adjust, readjust and restructure its social relations in a time of crisis (Chambers, 2020). Authors have discussed the different notions of fixes in capital accumulation or solutions to specific problems involving the marketisation, commodification and financialization of nature. This is where socio-ecological fixes ask to reflect on "how the reproduction of capitalism is increasingly taking place through reconfigurations of socio-natural relationships and, more specifically, through the production of nature" (Ekers and Prudham, 2015, p.2441). Ekers and Prudham (2015) drew the 'socio-ecological fixes' from David Harvey's (1981) theory of 'spatial fix', which addresses the mitigation of economic crises due to overaccumulation of capital by finding outlets to invest in infrastructures with cheap labour, materials and resources, and thus renew accumulation processes in new markets (Ekers and Prudham, 2017b). This forms a vicious circle where fixed capital is invested in the landscape to fix a crisis temporarily but will then trigger another crisis in the future (Chambers, 2020).

Urban political ecologists have advanced the concept of 'fixes' by transforming them into social-ecological fixes. For them, 'fixes' always have socio-ecological dimensions and affect landscape transformation through the influence of institutions, laws, politics and finances, whereby crises are addressed both economically and environmentally

simultaneously (Ekers and Prudham, 2017a; Chambers, 2020). Natarajan (2021) explains that socio-ecological fixes initiate a critical theoretical debate to extract the different dynamics of nature and space. Mainly because, as Ekers and Prudham (2017a) mention, in some cases, socio-ecological fixes might exacerbate socio-ecological crises while inducing socially regressive effects or promoting greenwashing ideas through their green capitalism rhetoric. Both Ekers and Prudham (2017a) and Chambers (2020) criticise the lack of social movements and social struggle in shaping how nature and the built environment are produced, as it focuses more on the role of the capitalist state in fixing the crisis. In this sense, urban agriculture views with caution those socio-ecological fixes preferred by capitalism that temporarily overcome any barrier to further accumulation even with the potential environmental crisis it could produce. As mentioned by McClintock (2010), urban agriculture often emerges as a local protective movement to counteract the crises of capitalism and reconnect with metabolic relations and resource flows within cities. Thus, the relevance of urban agriculture as a civil society-led revolutionary rupture that presents an alternative beyond new 'green' technologies as a response to the climatic crisis that only leads to capitalist accumulation and hegemony disregarding the nature/society relationship.

The broad range of social, environmental, and urban concerns that urban agriculture addresses allow it to engage not only with UPE and socio-ecological fixes but also with environmental justice issues. Indeed, UPE has helped to conceptualise urban environmental justice initiatives because it accounts for some of the structural forces that generate unequal 'bads' and disproportionate access to environmental 'goods' by different social groups (Passidomo, 2016). Environmental justice is a normative concept and a social movement (Cook and Swyngedouw, 2012) that emerged in the 1980s as a critique of bureaucratic reformist environmentalism that ignored the environmental and health concerns of vulnerable, poor, and racial minorities communities (Agyeman et al., 2010; Sicotte and Brulle, 2017). Although it originally emerged from civil rights activists from communities of colour with a focus on racism as the centre of injustices, in recent decades, it has focused on distributive equity, recognition and political participation, highlighting the need to acknowledge the structures and procedures that generate injustices and the socio-economic context that defines exclusion and inclusion (Schlosberg, 2004; Paloniemi et al., 2015; Celermajer

et al., 2020). Takahashi and Meisner (2012) explain that while environmental justice has mostly been linked to issues of race and class in the USA, in Latin America, concerns have been framed as both an indigenous rights issue and a structural problem influenced by factors related to globalisation. However, and despite the differences in approaches, the movement led by the most impacted by environmental problems has redefined environmental protection as a basic right (Bullard and Johnson, 2000), and it has recognised that social inequality is closely related to degraded environments (Sicotte and Brulle, 2017).

Environmental justice has focused on distributive equity, recognition, and participation as different dimensions of justice that work together to make injustices visible and act. Indeed, for Heydon (2020, p.2), "unequal exposure to environmental harm tends to result from unequal participation in decision-making processes, and that a lack of participation tends to signal a lack of recognition". Distribution refers to differences among stakeholders who enjoy rights to material benefits and who bears the costs and responsibilities (Martin et al., 2016). Environmental justice advocates the need for environmental risks and costs not to be concentrated in or near disadvantaged communities but distributed equitably across socio-economic and cultural levels (Schlosberg, 2004; Cook and Swyngedouw, 2012). Agyeman et al. (2010) explain that not all people bear equally the cost of neoliberal economic policies that allow pollutant businesses in areas that offer the least political resistance and where the most marginalised sectors of the population live.

Recognition is the respect and affirmation of identities and cultural differences to overcome institutionalised prejudices to social status (Holifield, 2012; Martin et al., 2016). It is the extent to which different actors recognise individual and collective identities and their concerns, needs, ideas and cultures in interpersonal encounters in public discourse and practice about nature and the environment (Martin et al., 2016; Menton et al., 2020). Recognition of disadvantaged communities suffering from environmental injustice and those who participate is central to the definition of justice in the environmental justice movement (Schlosberg, 2004; Cook and Swyngedouw, 2012). Indeed, for Paloniemi et al. (2015), issues such as whose visions of the environment are recognised, who participate in decision-making and democracy, and what kinds of values matter are important to address recognition justice.

Participation is about the equity of institutional decision-making and requires an understanding of how unjust distribution patterns and lack of recognition come together in political and social processes to impede stakeholder participation (Heydon, 2020; Menton et al., 2020). Environmental justice calls for inclusive participation in decision-making processes so that disadvantaged groups, not just the upper-middle-class white environmentalists, are heard, respected, valued, and their contributions considered (Schlosberg, 2004; Davenport and Mishtal, 2019; Heydon, 2020). Especially, they agree on the participation of actors who suffer the injustice of the lack of cultural recognition as is the case of the indigenous movements, very relevant for urban agriculture in countries with indigenous communities (Schlosberg, 2004). Therefore, institutions must facilitate meaningful or influential citizen engagement in the different stages of decision-making processes with transparent and accountable communication structures (Heydon, 2020). Environmental justice activists call for active and authentic community participation, recognition of community knowledge and cross-cultural cooperation to enable community-wide participation (Schlosberg, 2004).

The environmental justice framework attempts to uncover the underlying assumptions that can contribute to and produce unequal protection (Bullard, 2015). Environmental justice has come to address the classic issue of the social injustice of environmental impacts and the reality that no social justice system is possible without a functioning and sustainable environment (Celermajer et al., 2020). In these critiques, social justice, environmental justice, and ecological justice go hand in hand, as the poor suffer from both social and environmental inequity and the consequences of resource exploitation for economic gain (Schlosberg, 2004). Urban agriculture is closer to the areas covered by environmental justice in that it addresses smaller-scale, localised and everyday forms of injustice and works to improve their space for all in the community.

2.2.1 Urban agriculture in Global North and Global South

Urban agriculture is practised around the world with multiple approaches and diverse intentions. However, the literature tends to differentiate the experiences and objectives of urban agriculture according to their location and the development of their societies, attributing to the Global North a social and environmental activism to empower

communities and pursue social justice, and to the Global South a movement to ensure food access and availability, poverty alleviation, household income and food security (Contesse, 2014; Thornton, 2018; Gray et al., 2020). Although some cultural, historical and social characteristics influence the formation of these urban agriculture ideas (Serra da Cruz et al., 2021), Thornton (2018) explains that some concerns related to poverty, food access and availability, and land pressures are common in a North-South comparison. The only differences are in the scope and scale of the approaches since the broader picture of the city's population expansion and challenges related to food supply/security affects both contexts. Indeed, urban agriculture has adopted a more nuanced definition that offers more similarities and recognises the particularities specific to the local characteristics of cities and countries. In particular, migration from Southern to Northern has added diversity to local values, experiences and culture, allowing minority groups to connect in meaningful ways away from their foreign host culture (Mougeot, 2006). Furthermore, similarities are generated due to the less pronounced differences in the growth of the middle class in many countries, forming a global middle class, homogenising governance and policies that share similar problems and experiences (Gray et al., 2020).

A common perception about urban agriculture is that it is triggered by economic crises, military conflicts, rapid urbanisation and poverty during industrialisation (Drescher et al., 2021). In the Global North, urban agriculture is triggered by a renewed interest of individuals and groups in the urban life's environmental, social and political aspects (Schwab et al., 2018). Indeed, community allotments in the Global North appeared in the context of economic recession and deindustrialisation due to the abandonment of cities in the 1970s, especially in the poorest sectors. Urban agriculture participants used those abandoned plots, provided food to the local population, and impacted the community by improving social cohesion, education, and the environment's quality (Moraga, 2018). In the Global South, and despite similarities in needs with the North, urban agriculture is triggered by the need to provide food to low-income families to solve the most common social and economic issues present in the countries, such as poverty, political and economic declines, market failures, food crisis or food demand (Kutiwa et al., 2010; Saldías, 2016; Hudson et al., 2019; Drescher et al., 2021). It is also driven by reconnection with traditional and indigenous agroecological knowledge, local food production, integration of local consumers and producers,

social interactions, and social empowering (Drescher et al., 2021). Indeed, in Latin America, especially in Mexico, Dieleman (2017) considers that urban agriculture restores pre-colonial ways of life of indigenous communities and reconnects the rural past of urban residents who have relatives who migrated from the countryside or have familiars living there.

Access to food is a concern that affects people in the Global North and Global South with some differences due to the vulnerability of some countries to insufficient income, unhealthy food, environmental disasters and lack of adequate regulations (Drescher et al., 2021). For many countries in the Global South, it is argued that urban agriculture began with a concern for production, focusing predominantly on subsistence, food sovereignty and food security, especially in developing countries of Latin America (Fernández and Morán, 2012; Schwab et al., 2018). Drescher et al. (2021) explain that urban agriculture is practised in many cities of Latin America and the Caribbean in diverse forms, situated in very political and economic contexts, history, culture, and environment. The farmers faced a lack of space, poor quality of soils, and unreliable water supply in their work. Indeed, according to Rodríguez et al. (2016, p.5), Latin American countries are "characterized by profound differences between and within countries but especially by the market and persistent inequality in income, distribution, high unemployment and high levels of poverty and illiteracy". In the case of Chile, food security is not the main priority (Astudillo, 2017; Moraga, 2018) since, according to Grisa and Sabourin (2019), the levels of food insecurity in the country are shallow compared to others in the region that use urban agriculture to feed themselves. While for the countries in the Global North, it is due to the lack of public policies and access to fresh food in the more vulnerable neighbourhoods and the disappearance of local stores as is the case in some areas of the United States (Fernández and Morán, 2012). Therefore, Gray et al. (2020) explained, although both face food problems, urban agriculture in the Global South has a more productive lens and that of the Global North a post-productive turn. Urban agriculture also faces problems related to the tenure arrangement for integrating urban agriculture into cities. In the Global South, land availability is less of an issue than land access, as cities may have many plots of land that cannot be built on and thus remain temporarily vacant (Mougeot, 2015). However, in the Global North, the problem is land availability since areas of cities are often highly urbanized and dense, which limits the use of open

spaces, leading to investment in green infrastructures such as rooftop gardening or vertical gardens (Mougeot, 2015; Dieleman, 2017).

The differences established in the Global North and Global South literature are shaped by a disparity of knowledge about particular cases. Urban agriculture practices and experiences in the Global South are largely understudied, under-recognised in urban policy, and their capacity to strengthen urban resilience is undervalued (Drescher et al., 2021). Indeed, Pinheiro and Govind (2020) noted a North-South divide in producing publications on urban agriculture research, with the United States, United Kingdom, Germany, Canada and Australia contributing 58% of the total publications between 2004 and 2018. Although there are some countries from the Global South, urban agriculture research is largely focused in the Global North. Gray et al. (2020) point to research bias in their approaches as a critical problem in knowledge formation in the Global South since researchers prioritised quantitative assessments of poverty, income, livelihood, and production rather than understanding the power dynamics of actors and resources that shape the economy and discourses. Unlike the Global North, where urban agriculture is studied in its multifunctionality, and post-industrial solution to urban problems, including environment, justice, social movements, civic engagement, sustainability and resilience, urban agriculture in the Global South suffers from insufficient, biased, and qualitatively focused research that partially characterises the practice. Because of these problems, it is important to include approaches that understand the flows, actors and political struggles that have been covered for years in the Global North but have been barely mentioned in the Global South, which is the purpose of this research. Furthermore, it helps to investigate the case of Santiago in its Southern context to explore whether urban agriculture fits the characteristics usually associated with the Global South or is a combination of both, due to the use of urban agriculture for social purposes and the potential of urban agriculture to include characteristics usually associated with both the North and the South.

2.2.2 Urban agriculture in Chile

The history of urban agriculture in Chile is closely related to rural life and neoliberalism. Urban agriculture in Chile is not a new experience. Historically,

Chilean society has been characterised by a strong attachment to rural life since colonial times. Citizens imported, in their migration process from the countryside to the cities, different techniques of domestic and community agriculture (Fuentes, 2014; Fonseca, 2019). The customs and traditions of rural families overlapped with the urban environment by developing agricultural practices similar to those previously performed in their rural homes (Roubelat and Armijo, 2012) to produce fresh fruits, vegetables, and remedies to cure diseases. Unlike some of today's forms of community allotments, at that time, families farmed in the privacy of their houses (Saldías, 2016). However, allotments began to disappear in the face of modern lifestyle, increased population density, and the influence of markets on land use. One of the oldest urban agriculture organisations in Santiago was the Huerto Obrero y Familiar de La Pintana. It started as Cooperative José Maza in 1936 to create worker' allotments for low-income families to provide them with economic support (Vega, 2013; Deichler and Yáñez Andrade, 2018). Their work resulted in the enactment in 1940 of the Law N° 6,815 to allocate direct funds to a project for affordable and decent houses and space for food production to workers to encourage allotments and domestic business and, in this way, improving the quality of life of workers living in precarious conditions in Santiago (Fuentes, 2015). The migration from the countryside to the city, caused by centralised government policies that focused on the larger cities, forced the government to provide housing solutions to the growing population. It was planned that families could solve their housing and food problems in half a hectare through agriculture and livestock raising, using the products for home consumption, and using the surplus to generate income. The model of community organisation and housing allowed the formation of social organisations by neighbours, many of which are still active today (Moraga, 2018).

Until the 1970s, most agriculture was carried out in the countryside or on the periphery. The excellent agricultural quality of Santiago's soil made it possible to grow crops for local consumption and to maintain small allotments and farms for the subsistence of the poorest sectors. This situation changed during the dictatorship, and urban agriculture became an obscure activity where little literature could be found. The lack of information and research on urban agriculture in the dictatorial context led Vega (2013) and Fuentes (2015) to hypothesise that the survival objective present in previous decades was maintained during the dictatorship, but was complemented by

the right to the city due to changes in land ownership and use that occurred at that time. In this period (1973-1990), the focus of social movements and political actions was centred on their struggles against the dictatorship, and work in urban agriculture had less prominence. Fuentes (2015) explained that worker and family allotments cooperatives continued to exist. However, the policy of promoting the creation of cooperatives and worker allotments was abandoned in favour of the market as a regulator of land use. The author also mentioned as vital factors the increase in constructions in the city centre and the eradication and relocation of slums during the first part of the 1980s from rich to poor municipalities. This was mentioned as a key to the current situation of segregation in Santiago. Vega (2013) indicates that in this context, the remaining worker' allotments constituted a grassroots organisation that sought better living conditions and supported the self-consumption of families and the community. Along with these allotments, other participatory, self-managed, and autonomous grassroots organisations emerged due to the new city model and life in *poblaciónes*[5] working in economic, labour development, educational, political and solidarity activities such as soup kitchens, job workshops and cooperatives. In the post-dictatorship period, urban agriculture in Santiago has increased exponentially (Fuentes, 2015), uniting diverse actors and identities in a collective of actions interested in issues such as sustainable urban development, self-management and food sovereignty, as well as a cultural critique of the consumer society and the sense of private property (Vega, 2013).

Despite the heterogeneous nature of the movement and unlike the previous decades, no UAPs declared productive aspects as their main objective. Indeed, Casanova (2016), Astudillo (2017) and Moraga (2018) found that food production was the least important objective for the formation of allotments. Even in this post-dictatorship period, urban agriculture in Chile remains poorly studied. A few studies have shown that there are two objectives behind allotments formation. In the Region of Los Lagos, researchers observed that urban agriculture is mainly used as a business for economic purposes (Zencovich, 2003; Pardo, 2008; Pantanalli, 2009; Cabrera et al., 2013; Astudillo, 2017). Most are family businesses with salaried workers who comply with work schedules. However, in Santiago, researchers observed that allotments are used

---

[5] *Población* is usually perceived as a marginalised neighbourhood with social problems.

for social aspects due to their strong concern for rebuilding social networks and protecting the environment over economic practices (Astudillo, 2017; Moraga, 2018). For Vega (2013) and Fuentes (2015), if before allotments had a survival objective, nowadays they are for food freedom, critiques on consumption, community formation and political actions. Allotments are used as a gesture of resistance and reappropriation of the territory under an environmental and ecological discourse to weave community networks that overcome individualism and segregation. These allotments are located in public spaces, open to citizen participation, and are characterised by their mechanisms of community participatory and horizontal organisational (Moraga, 2018). They offer a space to promote new forms of organisation and coexistence on a small scale (Fuentes, 2015). Despite low food production, urban agriculture opened the possibility to disconnect from the free market model and accessing food sovereignty where people are informed about what they eat and cooperate voluntarily through the exchange of labour, seeds and knowledge. In addition, it promotes self-managed organisations, exchange networks where knowledge circulates freely and where traditional knowledge regarding food, cultivation techniques and reuse of organic waste (Vega, 2013).

The first characterisation of urban agriculture in Santiago was carried out by *Red de Agricultura Urbana* (Urban Agriculture Network) in 2012, where 39 allotments were found in 22 municipalities with a greater presence in wealthier sectors. Only 14 allotments were institutional or public, and the rest were inside homes properties. Another cadastre was conducted in 2014 by an undergraduate student, who found 36 allotments distributed homogeneously in Santiago. Unlike the previous research, this one only included community and public allotments in the sample. A complete cadastre was conducted in 2016 by *Red de Huertas por la Inclusion* (Network of allotments for the inclusion) and Germina La Florida through a more detailed data collection, including online registration in a database[6] and field observations with the support of more than 30 organisations and representatives who helped in different phases of the fieldwork. This research founded 227 allotments distributed in 32 municipalities concentrated in the centre and north of the region. Half of them were

---

[6] Until 2020, the webpage of Germina La Florida had a database connected with google map where people could include their allotments, reaching nearly 550 allotments, however, this webpage is no longer available.

freely accessible to the public, and one-third of them were community (Casanova, 2016). The author explained that many allotments were not included in the final cadastre because people did not want their address to be known, others did not want to be identified due to their illegal conditions, and many were not found during the brief data collection phase. Due to these limitations, the author explained that UAPs were higher than the result showed. The research showed that municipalities with more allotments had established networks, access to support and coordinating organisations. UAPs were established in easily accessible public spaces, maintained horizontal structures, organised in assemblies, and self-supporting and self-financing. Of the 66 allotments used for the analysis, 60 provided little or no sovereign food, and the other six did so moderately (Casanova, 2016).

In 2018 Moraga (2018) created his own database through an online search in which only allotments that met specific parameters were included. After segregation, 84 allotments distributed in 23 municipalities were included focusing more on the northern areas. Most of the experiences were educational and social, with a low level of productive and commercial interest. In another undergraduate research, Astudillo (2017) found that allotments were integrated by people ranging from 15 to 90 years old with no relevant gender difference but with socioeconomic, educational and occupational heterogeneity. There was a tendency for university groups to include younger people and neighbourhood groups to include older people. There was a high level (70.82%) of internal mobility within and between nearby municipalities. The author explained that 90.1% of the workshops produced by UAPs were free to the community, responding to an interest in transferring their knowledge to the population. Indeed, the author explained that the primary motivation to participate was the social, ecological and health aspects provided by the allotments and the groups. The groups also preferred the recovery and opening of common spaces; socialisation, elimination of tensions and organisation; and environmental awareness and education. There is great diversity among the different initiatives (Heitmann, 2014). Despite the growing number of allotments, workshops, and courses offered by community groups, this practice remains unknown to a large part of the population. Simultaneously, few relevant academic publications specifically address urban agriculture in Santiago or Chile in general (Moraga, 2018).

2.2.3 Urban agriculture legislation in Chile

In Santiago, urban agriculture has not yet been considered as a potential green space by the public ministerial agencies responsible for planning green areas. A vague and unclear definition characterises green areas in Chilean legislation. Decree N° 47 of 1992, the General Ordinance of Urban Development and Construction (OGUC), the main instrument that regulates the application of the General Urban Planning and Construction Law (LGUC), includes the official definition of green areas in its Article 1.1.2 as "area of land mainly intended to the recreation or pedestrian circulation, generally composed by vegetation species and other complementary elements"[7]. This definition does not specify the different elements that could be recognised as green areas (Leyton, 2013), leaving room for the inclusion of elements that are not necessarily covered on trees or vegetation (Barron, 2015) but that are intended for recreation or circulation, such as football fields, playgrounds, exercise machines and grey parks (concrete covering the ground). The lack of descriptions regarding the characteristics of potential green areas in density, size, diversity, canopy cover and types limits the use of urban agriculture in public spaces. Chilean national and municipal policies and the legal status of urban agriculture are minimal, but at the same level as other Latin American countries, as only 12 out of 23 countries (FAO, 2014) have national policies that support urban agriculture, recognising it as an essential source of food products, renewal of social space and promotion of sound environmental practices (Heitmann, 2014).

In Chile, there are no legal instruments on urban agriculture or that allocate territories for agriculture in cities, nor administrative policies that prohibit its practice, so that, ultimately, the use of public space to practise urban agriculture is subject to the decision of the mayor's office (Fuentes, 2014). This situation reflects the government perception of agriculture as an exclusively rural activity and shows the differences between state actors and community actors when the latter conceives urban agriculture as a beneficial activity for the city and its inhabitants. Some municipalities are already implementing UAPs, such as the Municipality of Recoleta or Santiago and trying to include them in local policies. Municipalities have political independence to approve plans or programmes to promote urban agriculture at a local level; such is the case of

---

[7] DS 47/1992 MINVU Ordenanza General de Urbanismo y Construcciones.

the municipalities of La Reina and La Pintana, which included some urban agriculture policies. However, in Chile, the focus of public policy towards urban agriculture has been limited and confined to areas such as food, the fight against poverty and education (Contesse, 2014). This situation reflects the exclusively rural vision held by policy spheres related to agriculture.

Despite that some UAPs use their private land to form allotments open to the public, many UAPs consider that the only way to cultivate is to appropriate the land and wait for the acceptance of their municipalities to remain in the space. Most activities are the result of citizen management rather than urban planning. Urban planning is carried out with little collaboration from the state, making it challenging to sustain the activity in the territory (Villagrán et al., 2014). Chilean urban planning policies are characterised by the postulate of minimum state interference in the free play of supply and urban land demand. This occupation of the territory based on market preferences, showing a clear neoliberal tone, has prevailed since dictatorship times (Madaleno and Armijo, 2004).

2.3 Implementation of Neoliberalism in Chile and its effect on Santiago's urban planning

Chile's current economic and social development is the consequence of a long process of restructuring that began five decades ago under the Pinochet military dictatorship, with the implementation of neoliberal[8] ideology under a radical orientation. During that period, Chile had an ideal situation that allowed the imposition of new economic theories based on a violent military dictatorship with total government control and an empowered elite that supported the economic reform (Undurraga, 2015). The reforms were conceived by a group of right-wing Chilean economists trained at the University of Chicago who sought to depoliticise civil society to prevent radical movements and

---

[8] "The neoliberalisation of Santiago during the dictatorial period followed this dual pattern. On one hand, violent state coercion and repression, often by the action of the armed forces, focused on disabling the socio-spatial configuration of the previous socialist regime and destroying the sources of its political power, as well as cleaning and preparing the urban grounds for the neoliberal accumulation. On the other hand a set of institutional and policy changes, designed by groups of pro-regime civilians and enacted by the military government, enabled a deep economic restructuring under a radical laissez faire orientation, which had large impact in the cities". Sanzana, M. (2016). *The greening of neoliberal urbanism in Santiago de Chile: urbanisation by green enclaves and the production of a new socio-nature in Chicureo.* Doctor of Philosophy, University College London.

the social conflict that characterised the 1960s and 1970s (Borgias, 2016; Sanzana, 2016). The political programme of the dictatorship focused not only on the overthrow of communism but also on creating a society based on market rules, elevating economists to a position of undisputed intellectual superiority (Zunino and Hidalgo, 2009b). Chile, then, became the first country to implement the neoliberal ideology in the formation of the State (Brenner and Theodore, 2010) and did so with more intensity than any other Latin American country that followed the same ideology later on. Neoliberalism was established through norms and modifications in different steps, following social and spatial transformations with specific strategies of continuously evolving institutional transformation (Brenner and Theodore, 2010).

The integration of neoliberalism into the political and socioeconomic system involved two periods, as Sanzana (2016) explains: one of dictatorial violence, deregulation and laissez-faire in the late 1970s and early 1980s, and another of re-regulation based on post-dictatorial consensus since 1990. In the early years, the dictatorship followed the central ideas of neoliberalism, proposing minimum state intervention and maximum market freedom. In this context, the role of the government in markets should be minimal, limited to providing security, protecting private property, and creating and maintaining markets (Harvey, 2007; Undurraga, 2015). The first actions began in 1975 with a radical macroeconomic and fiscal adjustment to end public debt, reduce inflation and stimulate private capital formation through cuts in the government budget, liberalisation of most of the previously controlled prices, privatisation of previously nationalised companies and liberalisation of the exchange rate (Sanzana, 2016). The main objective was the 'modernisation' of seven core areas: labour markets, social security, education, health, regionalisation, agriculture, and justice. In all these areas, modernisation was based on a series of common principles: decentralisation, privatisation, free-choice, and competition (Undurraga, 2015).

During the period 1979-1981, the military dictatorship implemented an intense set of reforms that were the basis of the new neoliberal economic system, through the growth of exports, the expansion of private debt, the elevation of private property to a privileged constitutional status and the enactment of a new constitution draft under a neoliberal and national security doctrine (Sanzana, 2016). The economic elites strongly supported these changes since they had economic and political interests in the

modifications. One of the most important planning changes was implemented in 1979 with the National Policy of Urban Development (NPUD) launch, a policy framework that guided urban policy development until 1994. This policy was based on five principles: Urban land is a non-scarce economic resource; its highest profitability defines land use; the spatial concentration of the population generates comparative advantages for the development of economic and social activities; urban land use must follow regulations defined by the market requirements; and the responsibility of the State is to protect the common good (Zunino and Hidalgo, 2009b; Sanzana, 2016).

The ideas of deregulation, liberation and subsidiary state policies reconfigured cities and adapted methods and processes to the interest of the emerging neoliberal state and the business class (Vergara-Perucich and Boano, 2020). The classification of land as a non-scarce economic resource transferred all forms of public intervention to the market and changed the idea of urban development from a way of organising space for people to access urban life to a way of generating profits by allowing urban sprawl and doubling the metropolitan area of cities, such as Santiago, and thus adding more land for free trade (Vergara-Perucich and Boano, 2020). The idea behind this radical policy was to lower land value by expanding the supply of land (Zunino and Hidalgo, 2009c) and allowing the market to transform rural areas into urbanised areas without state planning interventions (Imilan, 2016).

The economic ideology was reaffirmed in the 1980 Constitution, which established limitations to the State economic role by expanding private freedom, restricting the State's regulatory role and strengthening the power of the courts to protect private property rights (Azócar et al., 2007; Borgias, 2016). With these changes, the State reduced its participation as a regulator of economic activities and ceded protagonism to private entities (Azócar et al., 2007). During this time, the new policies greatly impacted land use and laid the groundwork for restructuring the urban land market. After the elimination of urban limits, the urban area in Santiago went from 40,000 ha to 100,000 ha, with most of the new areas destined for housing (Aquino and Gainza, 2014) and involved a process of relocation of around 150.000 to 175.000 people who lived in *tomas*[9] to the periphery and peri-urban areas of the city to separate families

---

[9] It refers to the illegal occupation of an abandoned land with the aim of later obtaining a permanent home in another sector of the municipality. This is a radical action from the families that await a

representing a social opposition movement and to clear large areas for future housing development (Sanzana, 2016). In this way, the market became the most powerful actor in this new social structure due to the demotion to a subsidiary state by the new constitution and political changes, the demobilisation of social movements because of the dictatorship and social control, and the preference for the business participation in decision-making to incentivise the free market.

The return to democracy in 1990 showed a city with deep political and socio-spatial segmentation and a government structure that supported the neoliberal model at different levels: from the disinterest in including diverse actors and defining social problems to housing policies that increased segregation and isolation of the poor (Zunino and Hidalgo, 2009b). Since 1990, the recovery of democracy did not imply a retreat from the free-market logic but rather its deepening (Zunino and Hidalgo, 2009c). Despite the contrary ideology professed by the new administrations and their discourse of an egalitarian society, policies were not modified to adapt to their beliefs, and all norms and structures were maintained. During that period, privatisations were neither reverted nor eliminated. However, new privatisations were made more transparent, new supervisory powers were granted to control the market exchange and monopolies, and a new model of state concessions was developed to regulate private exploitation of natural resources, infrastructures and services (Sanzana, 2016). Despite the government's goal to reduce the housing deficit, the government neglected to consider the economic interest of the market in the implementation of the plans. As a result, social housing portrayed massive spatial segregation with the most vulnerable population moved to the periphery, living in highly concentrated low-quality social housing, disconnected from basic services, and suffering vulnerability and territorial stigmatisation, while private developers made significant profits from public subsidies (Aquino and Gainza, 2014; Imilan, 2016).

Currently, urbanisation processes have increased socioeconomic gaps and inequalities in cities and, at the local level, have created difficulties in social interactions among actors (Azócar et al., 2007). Madaleno and Armijo (2004, p.47) indicate that in Chile, "urban development policies are characterised by the postulate of minimal state

---

response from the government on the issue of their own home. Usually, these spaces lack basic services such as electricity and sewerage.

interference in the free play of supply and demand for developable land". After many years of urban and social housing policies with a neoliberal approach, Santiago became a deeply segregated and socio-spatially disintegrated city, with a predominance of extremely homogeneous social sectors with no interaction between them (Rodriguez and Rodriguez, 2013). Average living conditions and quality of life progressed considerably due to income growth, improved housing standards, and infrastructure development, but mitigating urban inequalities and improving planning capacities are major challenges for the sustainable development of the cities (Garreton, 2017).

The inclusion of neoliberalism in the political agenda produced deregulation of policies and an increase in the availability of land through the liberation of urban limits, which led to an increase in the price of land in Chilean cities due to speculative processes (Sabatini, 2000; Inostroza and Schulze, 2014). Regulatory changes opened the space for the 'urban land market', where urban land has been transformed into an investment tool and even a financial asset to be traded (Gasic, 2020). Interestingly, there are no informal urban land markets in Chile as land ownership has been almost entirely regulated through radical public programmes (Smolka and Sabatini, 2007). The urban land market in Santiago responds to the dynamics of real estate developers and, therefore, the price of land depends on financial sector indicators. In this urban system, the housing market defined Chilean urban land use typologies based on the profitability of neighbourhoods, resulting in better or worse designed areas depending on real estate developers and investors (Vergara-Perucich and Boano, 2020). Since land is the primary productive asset of real estate's developers, they tend to accumulate a large portion of inhabited land by acquiring land at a relatively low price, which they tend to keep vacant for future projects to ensure its availability, anticipate its valorisation and wait for building regulations to become more flexible (López-Morales, 2010; Gasic, 2020). These available and unused spaces sometimes lead to insecure areas or promote the appropriation of land for housing by homeless families.

The historical perception of Chilean state institutions regarding the appropriation of urban land for housing, and therefore for urban agriculture experiences, has been seen as acts that violate the right to private property and, therefore, must be effectively intervened and people expelled to the periphery (Inostroza and Schulze, 2014)to areas

of low value and quality (Rodriguez and Rodriguez, 2013; Inostroza and Schulze, 2014). One way to control the external appropriation of spaces is through fences, which are often used to separate spaces, create private areas and impede pedestrian circulation. It is common to see neighbourhoods use fences to close off access to non-residents as protection against crime, which constitutes a symbolic appropriation of spaces and everything within the perimeter (Vergara, 2019). In some cases, the installation of fences is used to elevate the social status of residents who see their neighbourhood turned into a gated community. In contrast to the housing sector that uses fences as a mechanism of social distinction for those living inside, in urban agriculture, fences are used to protect the vegetables from stray dogs, vandalism or theft (Armstrong, 2000; Barron, 2016). However, this practice could decrease the bonding with the neighbours by isolating the garden, as they are seen as enclosed spaces, where passers-by cannot access, and produce cannot be taken (Barron, 2016), despite the intention of allotments members to create welcoming and safe social spaces.

Santiago's urban areas are very compact and dense, and the spaces available for the development of urban agriculture are limited. Access to land is a problem faced by individuals and municipalities looking for space for green areas. Land is under high economic pressure due to public and private sector interests for different purposes. For municipalities to create green areas, they must compete for space against private actors with higher economic resources, making it challenging to allocate urban green areas since most municipalities cannot buy land (Contesse, 2014). Real estate developers and private institutions are the main buyers of land for housing projects (Gasic, 2020), leaving non-accessible, non-strategic, low-quality and low-price land for the SEREMI-MINVU to use for the creation of urban parks and green areas. The accumulation of land by the private sector has led to spatial socio-economic segregation within the city (Sabatini, 2000) since the real estate agencies decide the location of social housing according to the low value of the land (Contesse, 2014). The different valorisation of urban land has created spatial differentiation and extreme polarisation leading to an unequal socioeconomic distribution in the city, which directly influences the economic resources of municipalities (Contesse, 2014; Arce, 2017). Some spaces are more profitable for the market, and, at the same time, other spaces are excluded because of their lack of economic potential (Inostroza and

Schulze, 2014). The market highly influenced the designation of land and the planning of socioeconomic activities in Santiago, hence the land prices. Indeed, the problem to build social housing in the centres and not in the periphery is not the lack of land but the price it has reached in recent years (Rodriguez and Rodriguez, 2013). This has led to an unequal socioeconomic distribution in the city, which directly influences the economic resources of the municipalities. While financial centres receive high investments, marginalised and disconnected areas receive mainly social housing that does not pay taxes to the municipalities; and therefore, municipalities receive fewer resources to invest in green areas (Contesse, 2014; Inostroza and Schulze, 2014).

The impact of neoliberalism in the socioeconomic sphere is profound. Economic and socio-political technocracies focus on political demobilisation and elite politics to consolidate democracy. Thus, decision making became a restricted technical practice in which the only valid opinion is given by applying "strict technical procedures and positivist science" (Zunino and Hidalgo, 2009c, p.522). Consequently, citizens were excluded from conversations about urban development, and their participation has been symbolic as negotiations are often established between politicians, technocrats and economic élites (Zunino and Hidalgo, 2009c; Ruiz-Tagle et al., 2017). After seventeen years of dictatorship (1973-1990) and four decades of democracy, neoliberalism has affected Chile's economic policy and substantially impacted social and individual life (Zunino and Hidalgo, 2009c). Despite claims of the end of neoliberal policies, the model's core remains intact, and any reform carried out have only further deepened the model (Sanzana, 2016). After all, as Veloso (2013) discusses, the continuity of neoliberal policies is only possible if there are no elements of opposition since the ideology's success depends on the disappearance of all the social movements.

2.3.1   Effect of Neoliberalism in the Actors Roles

The participation of actors in Chile has varied due to the political and social changes that the country has undergone. One of the most significant changes in the relationship between actors in Chile during the last decades corresponds to adopting the market as an organiser of social and political life (Canteros, 2011). The State transferred part of what was traditionally its responsibility to the market, transforming it into an allocator

of territorial resources (Arenas and Hidalgo, 2014) with the capacity to exercise political power and modify existing planning instruments and regulations (Zunino and Hidalgo, 2009c). However, the changes implied more than just acquired responsibilities, influenced by neoliberalism, the market transferred its logic to the planning system, transforming the concepts of State and citizenship into one more beneficial to the interests of the private sector; it influenced the land use to benefit its businesses; restricted the civil society geographically and in participation. Thus, the State went from being a provider of social support to a provider of services (López-Morales, 2010). The change affected the entire population, but the poorest directly suffered the consequences because the state reduced its role as guarantor of citizen rights and supporter of low-income families to allow the market to distribute the resources (López-Morales, 2010; Canteros, 2011). Because the state began to redirect its spending on social goods to subsidise the private sector in providing these services (Vergara-Perucich and Boano, 2020), citizens became clients and consumers (Canteros, 2011; Veloso, 2013). They were demoted to being a market object that needs to satisfy their demands satisfactorily. Their previous role as participants and defining actors of government policies changed entirely, and their legal power in defining plans was limited or eliminated. The neoliberal ideology needs the demobilisation and disappearance of social movements to deepen its influence on society, especially by isolating citizens in the market economy and preventing their social participation (Herrmann and van Klaveren, 2016).

In a couple of decades, the state's role in urban planning shifted from a provider to a supplier and from community-centred to market-centred, with various consequences on actors' dynamics. The main reason for this shift was the transfer of power to the private sector and the inclusion of the market in urban decision-making. Zunino and Hidalgo (2011) mention that the neoliberal mentality is so deeply interconnected in society that the 'market rules' became naturalised in the state. Arenas and Hidalgo (2014) point out a passivity of the State in the interaction with the urban political agenda, especially its disinterest in modifying the decision-making dynamic in urban areas even when they have the faculties. In the state-private sector relationship, the national government does not intervene in market policies and sometimes acts as their protector, articulating and managing policies and strategies for developing cities (Zunino and Hidalgo, 2009a). This relationship re-interpreted the fundamental

principles of city life in the light of a highly individualistic philosophy. Even local government adopted the role of mediator and auditor, allowing the work of the private sector with minimal interference and even facilitating its presence in the municipalities by changing land use and omitting the limitations of the plans to guarantee investments in their municipalities (Zunino and Hidalgo, 2009a).

The role of the private sector in urban planning gained prominence when urban development in Chile came to be defined by the economic interests of real estate developers, who had sufficient influence to exercise political power and modify existing plans, instruments and regulations (Zunino and Hidalgo, 2009b). Real estate developers decide many of the urban plans (Zunino and Hidalgo, 2009c). The inclusion of the private sector in urban planning has had two effects: it has restricted the information used in decision-making, and it has included people with significant technical expertise in the urban debate. When municipalities are weak and have lost their technical capacities, long-term goals are dictated by people with technical knowledge working on behalf of politicians and private developers (Zunino and Hidalgo, 2009b). The planning system privileged scientific knowledge to the detriment of anything else and thus relegated the lived experience of citizens. Members of the elite, political figures and those who benefited from market interactions were favoured over the civil society, which was not expected to have the same knowledge.

The privileged role of the private sector in decision-making accentuated the power of the elites, concentrating decision-making capacity in them (López-Morales, 2010). In the first place, this was achieved by producing a techno-economic elite that gained access to relevant positions within the formal state and enjoyed a privileged status. Currently, the elites monopolise the production of information, dominate the main decision-making spheres and use the formal State system to promote their purposes (Zunino and Hidalgo, 2011). They achieve this by prohibiting and substituting any form of social organisation that is not market-oriented, especially those mobilisations of the working class (López-Morales, 2010). Indeed, the logic of the system seeks to exclude voices that do not respond to an economic technocracy and to hinder the organisation of civility since a perfect market operates based on individuals making rational decisions (Zunino, 2014) and not groups of people who require conditions that

have no economic importance for the market but do for the community. Requests for protection of areas with sentimental values, such as parks or traditional old neighbourhoods, are illogical decisions for the market and are therefore not allowed.

The role of civil society has changed drastically due to the work of the state and the private sector. The main form of participation decades ago in Chile was popular organisations supported by political parties (López-Morales and Slater, 2016). Later, during the dictatorship, all mobilisations were deactivated and repressed, ending the long national tradition of holding large public protests to express social demands. In the late 1980s, social and political forces organised protests showing their opposition to the dictatorship (Cumming, 2015; Somma and Bargsted, 2015). After many years of disarticulation, people gradually returned to using social movements to disagree and demand changes. Some of the most demanding movements are the '*pobladores*'[10], who were very active in demanding access to housing for the poor before the dictatorship and continued after the return of democracy, demanding social recognitions, promoting property, opposing social exclusion and the concentration of economic and political power (López-Morales and Slater, 2016). The new social movements developed more sophisticated demands due to the technical support of NGOs or the training of their members and because they did not live through a period of fear and oppression when social movements were prohibited and sanctioned.

The post-dictatorial government proposed a series of guidelines to incorporate a paralysed and demobilised population into the system; however, real participation and the specific actions demanded by society were not included (Veloso, 2013). Although community participation is established in the DFL N°458 of 1976 General Urban Planning and Construction Law[11], its intervention does not go beyond consulting of plans. Although the authorities consider participation a procedure to be carried out, the neighbourhood organisations expect to deepen their participation (Canteros, 2011). Civil society has few instances of participation granted by institutions to express their adhesion or disagreement with policies (Rosso, 2014). Unless the community is strongly cohesive, highly prepared, and very articulated, its chances of obtaining favourable results to its requirements are very low if the municipality and private

---

[10] It refers to people living in *tomas* (see footnote 8), social housing or in very dense poorer municipalities of the periphery.
[11] DFL458/1976. Aprueba Nueva Ley General de Urbanismo y Construcciones

parties are united and have a common political and financial objective. As a consequence, some more progressive grassroots organisations with egalitarian objectives adapted their strategy of resistance to protest against political actions, thus initiating a profound change in the landscape of social movements, leaving the technical scenario of territorial planning and management and entering the plane of political discussion (Canteros, 2011; Del Romeral, 2016). Zunino and Hidalgo (2009b) mention that, for now, only the local government offers a space for citizen participation in local decisions and policies, showing that the problem is at the national level and, to a lesser extent, at the local level.

Urban agriculture in a neoliberal context where the state and the private sector often decide on land is complicated. Grassroots activist organisations with a more radical social change agenda have often been repressed and ignored throughout the different periods, and their recent emergence has been from a cautious position as a result. However, and despite the context of neoliberalism, traditionally marginalised social actors use social movements to raise their concerns and disagreements about being relegated by the system and thus contribute to opening spaces of influence in public decision-making bodies (Veloso, 2013; Zunino, 2014). Indeed, urban agriculture has emerged in a period of renewed civil society participation and in a period in which decision-making, policies, and planning instruments have been adapted to favour economic development through the private sector. The unequal dynamic among actors, especially from civil society, resulted from the inclusion of neoliberalism in urban planning, which has raised many questions about the distributed effects of public decision making in the urban case.

Urban agriculture groups, as land users, are affected by limitations in relationships and participation in decisions on land-use changes. As Bresciani (2006) argues, the sometimes irreconcilable debates between the State, the private sector, and civil society became part of a permanent scenario, which weakens the representative and planning logic of the democratic system while empowering organised groups. Urban agriculture represents a small part of the long-repressed civil society, wary of the private sector and the State. However, it is also formed by those born in democracy, who did not experience the suppression of civil society because they have lived through the neoliberal consequences in society. As a result, urban agriculture had to

experiment with new relationships to navigate a new system. Veloso (2013) mentions that it is difficult to return to the classical conception of the actors, and a new concept must be developed to characterise their position and objectives in the power dynamic.

This literature review identified three gaps related to urban agriculture under neoliberalism. The first refers to recognising the particular characteristics of urban agriculture from a country in the Global South. Latin America has a political and cultural history that is different from other areas of the world. It is where neoliberalism was born and expanded and where all countries share a colonial background. These characteristics reflect the participation of different actors, especially civil society, and urban agriculture, in the literature. Hence the importance of understanding urban agriculture from the perspective of the Global South. The second refers to the understanding of networks and narratives in the urban agriculture movement since, so far, research has been descriptive and historical (Contesse, 2014; Saldías, 2016; Astudillo, 2017; Moraga, 2018; Flores, 2019). Hence the importance of recognising the common interests, worries, characteristics of the different allotments to generate more connections and establish the current collaborative networks of Santiago (Heitmann, 2014). Furthermore, the third refers to the new societal relationships between the different actors of the neoliberal system. Urban agriculture groups, though a small movement, are forming interesting relationship dynamics in a period when social movements are slowly making their presence felt again in political spaces. Hence the importance of understanding the effects of their presence and impacts on the actors' relationships.

2.4 Chapter Conclusions

Through the revision of the literature review, this chapter explored the main concepts that led the research and built part of the conceptual framework for studying urban agriculture, social networks, and discourses in a neoliberal Chilean society.

Urban agriculture has emerged to provide a space that responds to the different types of crises facing society. While in the Global North, most allotments function as platforms for social demands and connections with nature, in the Global South, most respond to a food need to provide the population with their own sources of food and

income. This difference is less evident in Chile, but it is still relevant to consider since it is a Global South country with some similarities with the interests of the Global North. Although the number of allotments has increased in Santiago in the last decade, the legislation is still lagging in adopting these changes. The fact that the legislation is still unclear and vague on the definition of green areas sets a bad precedent for the inclusion and acceptance of green practices in the regulations. Ultimately, the responsibility for integrating or denying urban agriculture remains in the hands of each municipality.

The dictatorship was the leading actor in establishing the base of neoliberalism as it is now known. The full authority of the dictatorship facilitated the legislation changes in the relationship structures. The elimination of the urban limits, the increase of urban areas, the eradication of families to free space, and the increase of market power in decision-making prepared society to completely integrate neoliberalism into the state. Even those plans aimed at improving the quality of life of the most disadvantaged, such as housing subsidies, were only an excuse to support the real estate sector. Disregarding ideological differences, democratic governments continued to maintain the same system without significant changes. At present, the main urban developments are defined by the economic interest of real estate entities, which can exercise political power and modify the instruments of regulation and planning at different levels of the administrative system according to their needs. Currently, the situation is complex. People are presented with a contradictory discourse of social inclusion in the public and social policies of the State. However, there is deregulation of urbanism and fragmentation of spaces. The success of neoliberalism is based on the idea that there is no alternative.

The actors involved in urban planning present continuous changes in their power dynamics throughout history, especially when new political or economic ideologies are implemented. To better understand the relationships involve identifying the role of each of them at different levels. The role of the state differs within the scales of the national government and among other actors. It is not just about how the national level responds to other actors. It is about how each level has a different relationship with the private sector and civil society. The private sector has assumed a leading role since the implementation of neoliberalism, and, even before that, they used the power

transferred from the State to increase their participation and exclude those who were considered unnecessary. In some cases, it has worked well, but the growing movement against financial hegemony and inequality is reaching its limit in some areas.

The increased participation of social movements in different social spaces has slowly shown alternative opportunities to the current neoliberal and individualistic system. Urban agriculture appears as one activity that carries the potential to produce small impacts in neighbourhoods and strengthen the weak social connections between actors. However, the impact of urban agriculture as a movement to reach actors and produce discourses are still unknown. This chapter identified the need for more local knowledge related to urban agriculture from the perspective of a Global South country that has been under neoliberal planning and networking practices. This chapter also addressed the need to better understand the role of civil society in urban agriculture in the context of neoliberal Chile. To address this situation, the following chapter will present a theoretical framework linking governance networks and discourses.

Chapter 3. Governance and discourses: two sides of a network of stories

3.1 Introduction

In recent years, Santiago has experienced the emergence of nature-oriented projects that encouraged the participation of all sectors of society. In a city with a strong neoliberal economic influence that diminishes the power of the state and deprives civil society of public participation to increase the capacities of the private sector to develop UAPs, it is interesting to learn how the emergence of these UAPs has modified the networks, discourses and story-lines of society and sustainability in Santiago. This chapter will serve as a framework to understand the relevance of networks, discourses, and story-lines to the study and position the concepts in relation to each other through a literature review on the theoretical background of governance and discourses. The review is framed in two main sections, each of which answers a specific question. The first section, related to governance, responds to how networks connect actors and projects within a governance structure. The second section focuses on discourses and addresses how discourses and story-lines are used by project and network actors and constrain them in expressing their opinions.

It is essential to recognize that the concept of governance in the literature has been developed by scholars of the Global North, their perspective of knowledge, and perceptions of relationships born of their experiences, which is different from those formed in the Global South. Here, the concept of governance was created to cope with the changes brought about by neoliberalism, especially the withdrawal of the state.

Therefore, it is interesting to consider how the bottom-up groups relate to their social structures where neoliberalism has had a strong influence on the relationships formed; and how the circulation of discourses has been affected by the interface of community activism with the dominant ideology of neoliberalism.

This chapter explores the emergence of governance as a response to traditional government structures and examines the authors' views on the so-called 'shift' of government to governance. It then explores the characteristics of networks within the governance structure and networks relating to power, leadership, and trust-building. Having established the relevance of networks, it moves on to the relevance of the network of stories told by actors to present their ideas about sustainability and urban agriculture, which functions as a bridge to the discourse section. In the second section of the review, the chapter describes the concept of discourses by mentioning the two most popular definitions of discourses in the environmental and political literature provided by Maarten Hajer and John Dryzek and discusses the definition proposed by Hajer, which is the one used as part of the study. This is followed by an explanation of story-lines as discourse creators, discourses as channels of power, and ends with discourse coalitions as a set of story-lines. With a clear idea of the previous concepts and their usefulness for the research, the chapter explores knowledge as a complement to networks and discourses and describes social learning and community of practices as complements to form the knowledge produced and circulating by groups. The chapter closes with a reflection that synthesises how the literature review's critical analysis contributes to establishing the conceptual framework for this research.

3.2 Governance Networks

Governance emerged in the Global North as a response to the traditional governmental structures and the critiques of the welfare state, which was considered incapable of articulating and pursuing collective actions on behalf of urban government and imposing its will on society (Hysing, 2009; Torfing and Sørensen, 2017). It refers to a particular set of networks of interdependent actors from the state, private sector and civil society that, through negotiation, cooperation and coordination, contribute to the production of public governance and public policy-making (Sørensen and Torfing, 2005; Damgaard and Torfing, 2011; Torfing, 2012; Skelcher et al., 2014). They also

allow the development of new forms of participatory democracy in the decision-making process to handle the problems of the current fragmented political system, rigid bureaucracy and unequal market (Sørensen and Torfing, 2005; Blanco et al., 2011; Sørensen, 2013). Governance and networking offer a simpler alternative when dealing with complex interactions and solutions for specific and unique contexts than standard bureaucratic approaches (Giest, 2015; Konijnendijk van den Bosch, 2016). These networks can connect actors by building trust and commitment through environmental knowledge transfer.

3.2.1 Governance as a response to traditional structures

Since the 1980s, governments, to a greater or lesser extent, have undergone structural transformation processes under the influence of neoliberalism, adopting principles of private management, transferring services to private companies and granting greater autonomy to public organisations (Blanco et al., 2011). This hierarchical premise of governing with the state as the centre of policy (Löfgren and Ringholm, 2009; Keping, 2017) was questioned in Europe during the 1990s for being too formalistic, exclusive, uncoordinated and inflexible (Torfing and Sørensen, 2017). As a result, governance emerged as a new paradigm of networks of different public and private actors to produce urban policies in a scenario of monopoly and hierarchy (Blanco et al., 2011). The transfer of responsibilities to address social and economic issues to civil society was conceived for authors like Keping (2017) and Hysing (2009) as the main factor responsible for the blurring of boundaries between state and society, and between the public and private sectors, and therefore, the main factor that facilitated the emergence of governance relations. The intensity of the transfer and the actors who received responsibilities were not always the same in all countries. In the case of Chile, these modifications occurred during a dictatorship with a repressed and diminished civil society that had no participation or benefits from the responsibilities. Instead, due to the increased appreciation for the market, most of the responsibilities were transferred to the private sector.

The growing participation of citizens in governance has created a common concern among scholars about a shift from government to governance or a replacement of government for governance (Fawcett et al., 2012; Torfing, 2012; Groutsis et al., 2015;

Konijnendijk van den Bosch, 2016; Mattijssen et al., 2017; Torfing and Sørensen, 2017). In the literature, two main positions of the 'shift' are observed: governance above the government in decision-making power; governance and government complementing each other. The first position refers to a transfer of authority and decision-making power of the government to governance. Fox-Kämper et al. (2018) refer to this as a shift from state-centred (top-down) to multi-actors (horizontal) forms of regulation, which generates a lack of sovereign authority and autonomy (Groutsis et al., 2015). This balance shift means there are multiple centres with autonomy, where the state actors have a facilitating role but are not a central authority (Groutsis et al., 2015; Mattijssen et al., 2017). The second position establishes that governance and government complement each other, creating a duality, a "government plus governance", as mentioned by Fawcett et al. (2012, p.664). Unlike the previous position, here authors emphasise that governance processes or structures do not replace government responsibilities and power nor create a lack of authority (Folke et al., 2005; Fawcett et al., 2012; Groutsis et al., 2015; Mattijssen et al., 2017). This shift in governance occurred especially in Europe and some other parts of the world, but it differs slightly in the Global South. Torfing and Sørensen (2017) mention that the situation in Europe is different from elsewhere, and the impact of the political and public responses have been diverse. In Latin America, Paulsen Espinoza (2020) explains that governance is applied as a new political-administrative context that emerged during and posterior to dictatorships. Therefore, it is necessary to keep the political and geographical situation in mind when studying the Chilean case, and the application of governance in a neoliberal Chile needs to be explored. Indeed, it is relevant to be aware of the connection between governance and neoliberalism and its effect on the dynamics and relationships of actors. This is because the Chilean governance still maintains a strong influence of the private sector in decision-making, forming what Ramos (2016) calls neoliberal governance or 'market governance'.

Neoliberal governance refers to a change of roles in which the subsidiarity of the State and the public-private 'partnership' take centre stage. Indeed, in this new urban governance, the primary role of the market is the provision of services and the realisation of more inclusive public policies, while the State acts as a regulator with limited functions (Apostolopoulou and Pantis, 2010; De Mattos, 2014; Ramos, 2016). In a way, the basic objective of neoliberal governance is to move towards the greatest

possible commodification of economic and social life (De Mattos, 2014). For Calonge (2017), governance becomes neoliberal governance to the extent that civil society is equated with the activity of markets and, therefore, good governance is characterised by the success of governments in assisting market interests and not in providing effective public services. In this way, the government becomes an advocate for the benefits of neoliberal governance in shaping state policies, establishing pro-market regulations, strengthening private property rights, redistributing authority between governmental and non-governmental entities and expanding the roles of non-state economic and development actors (Apostolopoulou and Pantis, 2010; Tennberg et al., 2014), which end up weakening influence of the State and do not reflect the objectives and agreements of all social actors (Glückler et al., 2019). Due to the transfer of responsibilities for supporting public goods to the market, cities become dependent on domestic and foreign capital, making cities compete fiercely to make themselves attractive to receive investment (Calonge, 2017). This competition, together with the emphasis on public-private partnerships and civil society negotiations, has exacerbated existing problems among participating actors and created new problems (Apostolopoulou and Pantis, 2010).

Under the neoliberal model, governance could be used as a practice to favour the interests of the market and some powerful groups instead of a democratic exercise that allows the participation of actors in decision-making (Ramos, 2016). Indeed, Zunino and Hidalgo (2011) explain that Chile has a rigid style of traditional urban planning that has adopted public-private planning due to the transfer of essential functions to the private sector. While the inclusion of more actors may appear to be an open and democratic governance exercise, there is a risk that it is only a simulation in which civil society organisations lose autonomy, and only the work of the State is legitimised (Ramos, 2016). Indeed, Glückler et al. (2019) pointed out that, in Latin America and Chile, governance was used for powerful actors to legitimise their decision and increase their competitiveness in the territory. In this case, Janoschka (2011) wonders whether the governance model was not just a powerful strategy to legitimise urban policies already agreed upon before the participative process. Some economic sector lobbies were often able to silence civil society, limiting grassroots initiatives in urban planning, showing that neoliberalism governance hides the growing power of powerful groups that influence actors within networks and decision-making

(Janoschka, 2011). In this situation, civil society and social movements find themselves in a weak position that cannot respond to the new forms of governance. Although neoliberal governance was promoted as a way to achieve a greater degree of participation in decision-making of public interest among the different actors, it is evident that there are power asymmetries that benefit the private sector and exclude the public, traditionally marginalised sectors of the population, creating an elitist governance that maintain the inequalities of the neoliberal model (Ramos, 2016). Indeed, the author explains that due to the deep inequalities in Latin America, the actors involved in governance will always be the same, whose resources allow them to be informed and have power in decision-making. This is especially relevant for the Chilean case, since as mentioned by Paulsen Espinoza (2020) and as explained in the previous chapter, the formation of the neoliberal governance in Chile occurred under conditions of authority with extreme social repression on the working class, so the differences in power and influence among actors were present from the beginning and civil society has been an actor that has suffered from power asymmetries ever since.

The structural context in which Chilean social life unfolds requires a strong negotiation capacity between different national government levels (municipal, provincial and regional) and a multitude of social actors that, on many occasions, can slow down or promote initiatives in urban areas (Zunino and Hidalgo, 2011). Indeed, local communities, businesses and other non-governmental stakeholders can make important contributions to decision-making processes and green space management activities (Ambrose-Oji et al., 2017). One of those examples of multi-stakeholder civil society participation, including multiple actors, in urban agriculture. In the relationship between urban agriculture and neoliberal governance, some authors claim that urban agriculture tends to reproduce the rationality of neoliberal governance by promoting consumers choice and absorbing responsibilities that were previously the domain of the State (van Holstein, 2019). Sbicca (2019) explains that it might be difficult for urban agriculture to avoid reproducing neoliberal processes and logic, even if they try, as food and farming are produced by entrepreneurial activities. Hou (2018) mentions a contradiction between agriculture as bottom-up action and an expression of neoliberal governance that operates with individual efforts, collective actions, and institutional interventions. In the literature, McClintock (2013) observes a vision of urban agriculture aligned with neoliberalism and as a radical rejection of

the food system that fills the gaps of the neoliberal decisions. However, he considers both visions to be true. Urban agriculture is "*both* a form of actually existing neoliberalism *and* a simultaneous radical counter-movement arising in dialectical tension" (p.148). The author explains that "contradictory processes of capitalism both *create opportunities for* urban agriculture and *impose obstacles to* its expansion" (p. 157), which shows the difficulties urban agriculture deals with in their effort to remains in the territories in a socioeconomic system that often does not support them. While the perspective that allotments are radical and neoliberal reflects the experience of some national and international initiatives, the case of Santiago differs from the author's assertions about food production and social articulation due to the country's political and historical characteristics.

Chile developed a neoliberal governance that modified organisations and produced social disarticulation, changing the entire social structure with consequences in social memory. Therefore, the approach to the urban agriculture initiatives in Santiago is different from other societies that did not have their civil society criminalised, persecuted and exterminated (Paulsen Espinoza, 2020). As mentioned by Casanova (2016), Astudillo (2017) and Moraga (2018), food production and commercialisation are not integral elements of allotments formation in Santiago, so the argument that urban agriculture is radical for its contribution to the food system, food reconnection and food justice has no bearing on the present case. Similarly, the argument that urban agriculture is neoliberal because it emphasises entrepreneurship, personal responsibility, or advocates consumption-based solutions (McClintock, 2013) also does not apply to this case. The author's perspective that urban agriculture is both radical and neoliberal is contradictory to the situation in Santiago. Neoliberal governance was an enemy of civil society during the dictatorship producing social disarticulation and preventing its participation in decision-making. Today, when that civil society is empowered, neoliberal governance is an obstacle that sometimes provides help and support but often opposes civil society's political and social articulation and limits its participation (Paulsen Espinoza, 2020). The allotments that have emerged in Santiago, according to the literature, have a discourse of resistance and social articulation and are examples of a repressed community more interested in combating the environmental and social consequences of neoliberalism in society than in food injustice or food production. Their integration has not been supported by a

public-private partnership or a civil society-private partnership, their work has been hardly financed, they are not integrated by elites, they do not provide food for consumption or commercialisation, and they are often located in more disadvantaged areas. McClintock (2013) both visions do not characterise allotments in Santiago. However, they could reflect those in the rest of the country, as urban agriculture in other regions has different socioeconomic, geographical and historical experiences and purposes.

3.2.2   Networks from a Governance perspective

Despite the differences in terminology and approach among the research, there is an apparent consensus that networks are an increasingly useful key to understand governance. Networks are considered the basic unit of our society (Yang, 2007) and one of the most valuable concepts to understand governance relationships and structures. Indeed, Conteh (2009) emphasises that networks are the most essential element, as they allow the creation of links between a wide range of private and semi-private actors formed by common interests to achieve specific objectives, facilitate implementation, and establish decision-making structures (Yang, 2007; Aarsæther et al., 2009; Hysing, 2009). Relationships between private and public actors for policy-making are not a recent phenomenon. These connections were established in different countries in the past. However, what makes them unique now is the perception of governance networks as a legitimate mechanism of public governance (Torfing and Sørensen, 2017) and, in some contexts, a dominant form of social organisation. Networks consist of flexible and fluid horizontal interdependencies through which actors can direct policy development and implementation (Klijn and Skelcher, 2007). They are a kind of organism in which networks nodes try to cooperate to achieve their goal. In them, information and resources flow between nodes by circulating through ties. Networks allow the development of new forms of participatory democracy in the decision-making process by including various actors to handle the problems of the current fragmented political system, rigid bureaucracy, and unequal market (Sørensen and Torfing, 2005; Blanco et al., 2011; Sørensen, 2013). If the affected actors are involved in the decision-making process, they will tend to develop a sense of joint responsibility and ownership of decisions, which will force them to support, rather than hinder, their implementation (Sørensen and Torfing, 2005; Damgaard and

Torfing, 2011; Torfing and Sørensen, 2017). However, as mentioned by Stone (1988), cooperation cannot be taken for granted at any point in networks. It requires work to establish the connection between actors and then maintain it over time. Cooperation does not appear spontaneously when asked to respond to a problem or achieve a goal.

Governance networks carry different labels, forms and functions, demonstrating the broad relevance of the concept to describe interactive governance (Torfing and Sørensen, 2017). Regarding their labels, governance networks have been referred to in the literature as strategic alliances, partnerships, commissions and collaborative domains. Sørensen and Torfing (2009) argue that these differences are explained by the administrative discourses, institutional traditions, and political cultures, which determine the terminology used in a specific place and time to make them accessible to the actors' understanding and context. Due to their diversity, networks forms may be loosely connected, inclusive, bottom-up and short-lived, while others may be tight and highly integrated, exclusive, top-down and long-lived. Some networks formulate shared objectives, while others seek to avoid externalities. Also, some governance networks seek to enhance vertical coordination between actors at different levels of governance, while others aim at horizontal coordination between different public and private contributors to the production of public governance (Sørensen, 2013). Depending on their function, governance networks contribute to the exchange of knowledge, information, and ideas to facilitate well-informed and knowledge-based decision making; however, other networks aim to coordinate the actions of participants to avoid duplication of efforts and create collaborations. More ambitious governance networks might even attempt to develop a common understanding of emerging policy problems and formulate and implement joint solutions (Torfing and Sørensen, 2017).

Governance networks share some characteristics with the concept of urban regime theory. Regimes involve collaboration between public and private sector organisations to carry out governing decisions (Stone, 1988). Like governance networks, regimes are built on trust and diplomacy; they denote long-term collaboration and coordination actions around a set of agreed goals; and they provide empowering synergies (Davies, 2002). Unlike a governance network, a regime rejects any notion of a transition 'from government to governance' since it considers collaboration practices vital to the urban governing process (Blanco, 2013). Some authors mention that including urban regime

theory in the analysis can enrich the governance network approach by providing analytical tools, but it is not always recommended. While regimes tend to focus on long-lasting governing coalitions and operate at the city-level ones, the governance literature focuses on short-term arrangements at the sectoral level. Urban regimes tend to operate at the municipality level and relate to the municipality's main policy goals. Although both approaches could be mutually enriching for some research, in this case, as indicated in the previous chapter, urban agriculture is a marginal concern for municipalities with no statutory foundation.

Networks and partnerships are recognised as effective modes of public governance, especially when dealing with complex problems (Sørensen and Torfing, 2011). Indeed, governance networks could produce efficient and effective public governance responses to complex urban situations (Aarsæther et al., 2009; Blanco et al., 2011). Authors like Giest (2015) and Konijnendijk van den Bosch (2016) agree that traditional administrative government practices find it more difficult to cope with the complexity involved in the environmental field than more inclusive forms of practices, as they are designed to operate in a bureaucratic and hierarchical structure. Governance networks allow actors to improve policy identification problems and manage conflicts at an early stage, producing flexible responses and better coordination that allows for adjustments to specific conditions (Sørensen and Torfing, 2005; Ernstson et al., 2010; Damgaard and Torfing, 2011; Sørensen and Torfing, 2011; Torfing, 2012). By bringing affected actors together and facilitating collaborative solutions that foster mutual learning, networks can solve complex problems and objectives. Despite the potential influence of networks to solve problems and produce answers, this is hard to do in Chile, as the participation of civil society, which often identifies potential problems and seeks solutions, is ignored. Moreover, green areas and urban agriculture are not explicit local government policies, so talking about the effectiveness of implementation may be irrelevant. However, part of the governance theory that this research will focus on is the involvement of civil society actors in areas that could implicitly consider the responsibilities and objectives of the public sector. Indeed, network actors, especially the civil society, often have detailed knowledge, values, experience and ideas relevant to policy decision-making, and when the knowledge of all actors is brought together, it promotes the development of new and creative ideas that represent an important base for making informed decisions and

generating innovate solutions (Sørensen and Torfing, 2005; Ernstson et al., 2010; Sørensen and Torfing, 2011; Torfing, 2012; Torfing and Sørensen, 2017). However, this exchange could be a source of asymmetry between actors if networks are not carefully managed because actors could become dependant on each other's resources and lose their autonomy. A situation that often occurs when the private sector has more influence on decision making than the civil society in Chile.

The driver for the formation of governance networks, according to Torfing (2012), is the recognition that actors are mutually dependent and need each other to cooperate, coordinate and collaborate. This is relevant for urban agriculture since Moraga (2018) and Astudillo (2017), in their research of Santiago, explain how cooperation helps UAPs to obtain financial and technical resources, work in the allotments and built cohesion between members. They might pursue different interests that will be addressed in the network through internal struggles and negotiations. However, they will retain their autonomy, as they are not given orders by superiors and cannot be forced to think or act in a certain way; their participation is voluntary, and they are free to leave the networks (Conteh, 2009; Sørensen and Torfing, 2009). Therefore, governance networks establish consensual agreements that dictate strategies to overcome any possible interdependence problem between the actors (Conteh, 2009). A governance network implies a dynamic interaction through more or less institutionalised negotiations between relevant and affected actors, who choose to group their resources and coordinate their actions in the pursuit of common understandings and shared goals that are considered beneficial for the greater public (Torfing et al., 2009; Torfing, 2012), as opposed to a government that seeks to translate its political values into detailed laws and regulations implemented and enforced by public administrators (Sørensen and Torfing, 2005). Actors need to negotiate in a framework that facilitates trust and understanding, providing flexibility and space for conflicts, powers and compromise formations (Torfing, 2012; Giest, 2015). These negotiations allow actors to obtain specific benefits, move towards certain objectives or gain something. The level and success of their negotiations will depend on the type of power exercised by the actors. Both power and influence are attributed to social properties; one cannot be influential alone. It is useful to explore how actors attempt to gain compliance and support from those over whom they have power.

3.2.3   Networks: power, leadership and trust

Neglecting power relations in governance network studies could lead to a tendency towards a depoliticised vision of networked policy processes (Lo, 2017). Networks can be challenged by tensions in the agenda of different actors, influencing power relations and exacerbating differences. Due to their structures and functions, networks could be used as a centre of power by certain private actors interested in the public policy decision-making process (Klijn and Skelcher, 2007). In this sense, power could be understood here in terms of exchanging resources through the network, such as information, funding and technical expertise, and connections between capable actors. It is the capacity to be resourceful that places actors in positions of power. However, the decision as to which resources are powerful is defined by the key actors who hold power in the networks at the moment. The importance of actors is unrelated to their specific features but arises from their ability to contribute to the network's goal. Network actors may try to influence each other by controlling the agenda-setting, by persuading and confronting others, or by manipulating opponents' perceptions of their own interests (Lukes, 1974). Especially powerful actors, who have greater access to valuable resources and the ability to control them among the network members. This is the case of authorities who might try to influence the negotiations on their benefits and threaten to control the networks if they are unsatisfied with the results. However, this effectiveness is limited because actors can autoregulate and counteract authorities' actions due to their equal stance and responsibilities, allowing horizontal management strategies according to their own goal (Conteh, 2009; Liu et al., 2016). Unlike the hierarchical power, where there is a chain of command among actors, here decision-making is shared among actors. Thus, power, and social struggle have not vanished from the networks but have only been redefined. Indeed, Thornton (2018) explains that civil society participation in these networks depends on the space given to them to negotiate power relations and whether their voices and ideas are heard and used in urban policy decisions. Torfing et al. (2009) argue that different power relations and governance networks need to be explored to understand the political character of governance. Power relationships in networks are related to the dynamics of domination and resistance to domination. In the struggle for domination,

environmental networks emerge as challengers of the dominant structure of the network society, which is made up of the market networks.

Projects involving multiple actors require a trusted leader that creates cohesion among participants and moves the network toward specific objectives (Folke et al., 2005). Leaders are usually actors with charisma, recognised expertise, and the ability to adjust their behaviour to different situations. Their position allows them to manage potential conflict between actors with different perspectives, connect actors in need of knowledge or resources, facilitate partnerships between groups that share common interests, and act as a voice for those with less influence (Conteh, 2009; Giest, 2015). However, sometimes leaders are not elected and placed because of their ability to manage networks, but because they are powerful actors or urban economic elites with the greatest resources and information valuable to network members (Blanco et al., 2011; Schoon et al., 2016). These influential leaders are more likely to determine rules, alter structures, shape the policy outcomes and dynamics, redefine goals, change the configuration of the network, and even block the collective action of collaborations to direct it toward their own interest, which will result in a lack of transparency and accountability that challenges the consensus reached by actors with the negotiations (Groutsis et al., 2015). All actors are important to others in the network because they need each other for as long as possible. Power imbalances could destabilise the outcomes and affect the trust built between actors.

Social capital is considered the glue that fosters and promotes trust and reciprocity among network actors (Folke et al., 2005; Crona et al., 2011). Social capital is less related to structural positions of individuals and more to cohesion based on the existence of reciprocal ties between networks actors (Crona et al., 2011). Trust is considered the core of network coordination mechanisms because it creates a sense of community among actors that sustains the network (Crona et al., 2011; Klijn and Koppenjan, 2012). Folke et al. (2005) consider trust as the basis of all social institutions and is part of social influence, as it facilitates collaboration between people. Trust is not an inherent characteristic of networks, but it plays an important role in the performance of governance networks by reducing the need for complex contracts and enhancing the exchange of information and innovative solutions between actors (Klijn and Koppenjan, 2012). Thomas et al. (2020) explain that trust

can vary over time in-depth and be strengthened across different relationships contexts. With this in mind, the author mentions that longevity, consistency, and regularity of contact are key factors in maintaining and improving networks' trust.

Governance networks present a strong sense of community that could generate the involuntary exclusion of external actors (Sørensen, 2013). Although governance networks are not inherently undemocratic, Sørensen and Torfing (2009) mention that, to outsiders, citizens empowerment and self-governance could be perceived as closed, opaque and authoritarian in practice (Fotel and Hanssen, 2009; Paloniemi et al., 2015). This perception is supported by some researchers who claim that governance networks threaten democracy because they tend to undermine formal principles and institutions of representation by enhancing the influence of self-interested elites coalitions (Torfing et al., 2009; Lo, 2017). In contrast, other researchers argue that governance networks can help to strengthen democracy because they address the shortcomings of its representation by increasing the participation of affected actors in decision-making arenas by providing a new platform for political mobilisation and introducing a wider range of competition for public service providers (Torfing et al., 2009; Lo, 2017). Although networks can be undemocratic when closed to actors, they can also be opened and, thus, contribute to the democratic character of decision making (Klijn and Koppenjan, 2012).

3.2.4   Network of stories

Governance emphasises the role of discourses and story-lines in unifying policy networks, shaping the interaction between actors and structuring a common framework for actions. Governance networks provide insights on how discourses and story-lines are formed in problematic areas where actors supporting a particular argument seek acceptance from other actors by being persuasive. Discourses shape how problems and challenges are understood and defined. Over time, discourses become concepts and institutional practices that network actors take for granted (Torfing and Sørensen, 2017). Indeed, "story-lines and discourses are not only unifying, structuring, and stabilising governance networks, but also play a crucial role in including and excluding actors, issues, and options" (Torfing and Sørensen, 2017, p.340). While networks are easily identifiable, discourses are not so evident and

apparent. Networks ties not only mobilise resources but are also the way ideas, discourses, story-lines and knowledge flow through networks and between actors. For networks to function properly, actors must be willing to work together, and this depends on the exchange of similar discourses because sometimes the establishment of ties in the networks is not enough for actors to cooperate. Actors need to have a common goal and discourse that strengthens their connections. The role of discourses concerning governance networks unravels how discourses and story-lines are shaped by actors who want to gain acceptance of their arguments from other actors. As new actors are rising to contest those discourses, it would be interesting to know the exact discourses the new actors contest. In the next section, I will look at discourses and story-lines, emphasising Hajer's work. The author has opened a research line exploring how policy actors with diverging interests are brought together in a relatively stable discourse coalition held together by a story-line that defines critical problems and solutions.

3.3 Discourses

Discourses, initially a concept from linguistics (Withanachchi, 2013), have been used and adapted by different humanities and social sciences disciplines. They frame ideas through words (Buizer and Van Herzele, 2012) and shape and influence what can and cannot be thought in society (Hajer and Versteeg, 2005). By using specific discourses, actors are actively 'positioning' themselves and others in discourses categories. Indeed, Elliott (1996) observes that people constantly adjust their responses according to their perceptions of the context. Authors also mention that meanings, statements and discourses are produced depending on a specific time and place, while framed on a cultural and political formation; therefore, what is said cannot be properly grasped outside their context of use (Hajer, 1995; Falleth and Saglie, 2011; Hehn, 2016). People use language to construct accounts or versions of the social world in attempts at persuasion and legitimisation (Elliott, 1996). Language refers to social and cultural meanings born of mutually accepted rules, norms and operational routines that give coherence to social life (Hajer and Versteeg, 2005). Gee (2010) prefers the term 'social language' to cover everything we learnt from our society and what we speak as a result. However, for van Dijk (2011), it is not enough to express what we know or learn; we

need to know how to adequately adapt to different communicative situations and, also, to acquire 'world knowledge' to produce and understand meaningful, coherent sequences of sentences. Language allows and limits the range of practices and interactions in which actors can participate (Feindt and Oels, 2005), especially those lacking the most specific scientific knowledge in environmental issues or those who do not speak the local language. As mentioned by the authors, all the actors must understand the language and meaning of the delivered information in the specific context, which excludes those unfamiliar with the codes and rules. A discursive perspective allows understanding how 'nature' and 'environment' are continuously 'produced' through different lenses, and to reveal if environmental policies are a reconfiguration and retribution of power in the name of the environment (Feindt and Oels, 2005). Rather than being autonomous, discourses exist in relation to others and include references to or elements of external discourses (Hehn, 2016). In this way, language has the capacity to make politics, create signs and symbols that shift power balances, render events harmless or, on the contrary, create political conflict (Hajer and Versteeg, 2005).

In the environmental policy literature, the term discourse is used in a broader way than it is in other disciplines due to the popular definition of Maarten Hajer and John Dryzek. The authors contributed greatly to popularising the relationship between the environment and discourses by providing the most commonly used definitions in the area. Both are based on Foucault's terminology of discourse, which, according to Feindt and Oels (2005, p.164), "is more interested in knowledge than in language", and it is focused on the "productive function of discourses". Hajer defines discourse as a "specific ensemble of ideas, concepts, and categorisations that are produced reproduced and transformed into a particular set of practices and through which meaning is given to physical and social realities" (Hajer, 1995, p.44). Similarly, Dryzek (2005, p.9) defines discourses as "a shared way of apprehending the world", which:

> enables those who subscribe to it to interpret bits of information and put them together into coherent stories or accounts. Discourses construct meanings and relationships, helping to define common sense and legitimate knowledge. Each discourse rests on assumptions, judgments, and contentions that provide the basic terms for analysis, debates, agreements, and disagreements.

Both definitions connect actors' intentions and beliefs to the social practice in which it is produced. Hajer includes the analysis of discourses and analysis of social practices concepts. His approach combines the regularities and variations of what is being said, the social background and social way of speaking, and its content. Dryzek also includes more subjective expressions usually associated with discourse formations such as objects, concepts, strategies and practices. Both authors believe that discourses are more than tools used to deliver information and include contextual and personal elements to form discourses. However, while Hajer's definition focuses on the social practices through which discourses are produced, Dryzek's definition direct attention to identifying how assumptions, values, and ideas fit together into coherent discourses that can coordinate action.

Despite the popularity of both definitions, authors like Takahashi and Meisner (2012) criticises Hajer's definition by saying that it is too simple and direct, more related to story-lines than discourses. And says that Dryzek's definition is intentionally trying to include most of the environmental issues so that they fit into all his categories of environmental discourses making it difficult to apply in specific cases. Similarly, Novikau (2016) finds them too broad and too far from the most traditional definition because they add characteristics and elements to other concepts. For the author, environmental discourses are just textual and spoken interactions about the environment. He prefers the term environmental ideologies over environmental discourses to describe various belief systems towards the environment. In this research, I will use Hajer's definition to frame my understanding of discourses, story-lines, and discourse coalition. His definition embraces production and reproduction ideas in social contexts, an essential part of this research that looks to UAPs relationships in a neoliberal context.

3.3.1 Hajer's approach to discourses on environment

Hajer's approach assumes that social action occurs through language use, and thus, he investigates language through a social lens to unravel how problems are constructed. His focus here is on the social interactions that involve how actors try to persuade others to make sense of the world in certain ways or argue a certain version of reality. He combines analysis of discourses through which reality is produced with analysis

of social practices from which constructs emerge and how actors, who make statements, engage (Thomas and Littlewood, 2010). The author claims that our understanding of nature and the social environment is based on representations and implies assumptions and social choices mediated through an ensemble of specific discursive practices (Thomas and Littlewood, 2010). As a result, discourses are constantly evolving and open to challenge from competing interpretations of an issue (Hajer, 1995). In his approach, the reality is seen as a social construction. Therefore, the analysis of meanings and language follows a social constructionist tradition, which assumes the existence of "multiple, socially constructed realities instead of a single reality, governed by immutable natural laws" (Hajer and Versteeg, 2005, p.176). For Hajer, key actors create a specific idea of reality through discourses (Hajer, 1995, p.44) and, through discourse analysis, he analyses "the ways in which certain problems are represented, differences are played out, and social coalitions on specific meanings somehow emerge".

Hajer also mentions that domination and institutionalisation of discursive space produce solidified social practices and reasoning. In this way, institutional practice is the medium by which certain actors impose their views of sustainability on others (Genus, 2014), which needs to be continually reproduced to create an interest in the actors and affect the networks. The author describes how NGOs and lobbyists exploited the opportunities to influence discussions and the strategic outputs of discourses networks formed around new environmental policy challenges (Hajer, 1995). Hajer emphasises that discourses prohibit subjects from raising certain questions, making certain arguments, or participating in certain discourses.

3.3.2   Stories as creators of discourses

Story-lines are condensed statements summarising complex narratives (Hajer and Versteeg, 2005). They are devises actors use to pursue a particular agenda and influence policy-making and the narrative to mobilise the discourses. Story-lines allow actors to combine elements of different discursive domains and provide a set of references that suggest a common understanding of a specific physical or social phenomena that then frames the taken policy approach (Hajer, 1995; Wilson and Hughes, 2011). Hajer marks up story-lines' role in producing different discourses into

a coherent whole whilst masking the complexity of discourse (Genus, 2014). He also uses story-lines to discuss metaphors that are enacted to allow for the discussion of interdiscursive problems. Discourses and story-lines unify policy networks and shape the interaction between participants; structure and stabilise governance networks; and play a crucial role in including and excluding actors, issues, and options (Torfing and Sørensen, 2017).

Story-lines are essential political devices that help to construct a problem and position actors and responsibilities. They also play an important role in creating social and moral order in the given domain (Hajer, 1995). Story-lines help to identify the key actors and the chain of events leading to the perceived problematic situation (Eckstein and Throgmorton, 2003). They are used to position actors and through which specific ideas of 'responsibility' and 'blame' are attributed. Although many story-lines in the environmental area are formed for the benefit of the environment, not all are. Actors can support discourses of environmental concern that lead to their interests or adapt their discourse to a particular social or economic situation, which could be one reason they are attractive to sustainable development, as they can choose the discourse they will present. Some stories will manipulate and deceive, and other stories will be told strategically to serve interests that are not fully revealed (Beauregard, 2003). In this way, all stories select certain events to tell and others to ignore (Eckstein and Throgmorton, 2003).

Environmental politics brings together many actors who all have their own legitimate orientations and concerns and have their own mode of talking. During discussions and negotiations, actors might use simple story-lines, assuming that others will understand their meanings and intentions. Indeed, the fact that actors' debate about the environment in a common setting does not imply that all are familiar with the story-lines or that other actors correctly interpret the meaning of the story-lines similarly. However, actors can still produce relevant political intervention even if they cannot fully understand each other because, despite the great variety of modes of speech, they somehow seem to understand one another (Hajer, 1995). It is the effect of misunderstanding that can create a political coalition (Hajer, 1995; Hajer and Versteeg, 2005).

3.3.3 Discourses as channels of power

Although Hajer does investigate power relations, he does not focus his approach on the role of discourse in the production, reproduction, and challenges of dominant structures and relations. Instead, he explores how discursive practices are repeated and normalised to construct social realities. As such, Hajer's approach is not considered to be situated within critical discourse analysis. The real contribution of his discourse analysis approach is the ability to trace the discursive power and struggles underlying environmental politics where conflicts between discourses may be exacerbated, sidestepped or resolved (Hajer and Versteeg, 2005), and discovering the contradicted, paradoxical, and contested power of language (Elliott, 1996). Valid discourses facilitate consensus through building trust and understanding, while distorted communication can lead to mistrust and confusion (Afzalan and Muller, 2014).

Power limits and enables what can be authoritatively said and heard and what is considered 'thinkable'. The exercise of power draws inclusion and exclusion lines, producing practices and social relations from the political struggles (Howarth, 2010). Powerful discourses may shape the actors' interpretation of the policy field and which actors are considered legitimate in the policy process (Hehn, 2016). Power is found in discourses, in the performance of conflict and in the particular way actors mobilise the discourses and reconnect the previously unconnected links (Hajer and Versteeg, 2005). Powerful actors who perceive their interests threatened by established or emerging discourses will try to nullify developments at the discursive level (Hajer and Versteeg, 2005). Elites and dominant groups in society who have privileged access to scarce social resources may control the access to public discourse and various kinds of non-public discourses and, thus, indirectly control the knowledge produced by such discourses. After all, discourses could be easily manipulated by the most powerful group to influence an issue, impose a particular frame or discourse onto a discussion, or send intentionally misleading information of the reality to gain the favour or approval of internal and external actors. As Wilson and Hughes (2011) argue, discourses are developed through language, but language reflects underlying attitudes and values, and people can use them to intentionally "construct accounts or version of the social world" (Elliott, 1996, p.65). Those in control may selectively decide which relevant information will be incorporated into the public sphere and, in this way,

indirectly manipulate public knowledge formation and change (van Dijk, 2012). Hajer (1995) shows the power of the discursive concepts, when combined with effective expert networking practices, can affect policy in an urban area in the Netherlands. A major Dutch NGO could push the idea of ecology in areas to justify higher spending on nature on the basis this produced economic benefits.

3.3.4 Discourse coalitions as a set of story-lines

Discourse coalition is another concept mentioned by Hajer. They are formed around a set of story-lines or ways of talking about a particular policy that gains acceptance among a range of actors, the actors who utter them, and the practices in which this discursive activity is based (Hajer, 1995). A coalition consists of a group of different actors that share attached meanings to a particular story-line and share a common understanding of the issue that has unified it. Story-lines that resonate with specific interests can provide a mechanism through which different interests can be reconciled and mediated. For the authors in the literature, story-lines are the discursive cement that holds together a discursive coalition and not interests. Actors and elites join the coalitions because they have similar interests, that could be the other actors integrating the group or the story-lines developed by the coalition, but they stay together due to the common story-line that unifies their objectives. Although, Takahashi and Meisner (2012) claim that discourses hold together the coalitions of members who share similar views on an issue but do not need a formal relationship. Coalitions can mediate between different interests and bring together similarly affected actors.

Powerful elites with strong influence and skills to control resources are often key actors establishing their positions as the strongest coalition (Sørensen, 2014). These elites are a constricted circle of people sharing similar beliefs, attitudes, and ideas. They play a relevant role in determining the relevant issues for discussion and direction of the solutions. The stronger a coalition of actor networks, the more influential it is in adapting the project towards the elites' objectives. Hajer's framework is best suited to analysing a situation with an identified discourse coalition composed of actors uttering distinct story-lines and engaging in similar practices. This is the case of his study about the influence of ecological modernisation on the regulation of acid rain in the UK and the Netherlands, where the author used discourse analysis to frame

environmental problems and environmental politics to analyse the policy discourses and how this discourse affected policy-making. His approach differentiates from other authors by the inclusion of discourse coalitions and by his emphasis on democratising policy-making. According to Horwood (2011), communication between actors with different interests and visions is essential for coalitions' formation and maintenance. The communication flows are crucial when dealing with different organisations' networks to maintain a strong policy process in a governance context. Since the level of influence and power of the different actors and coalitions participating in green areas projects is unknown, information about the connections between actors within each project and between projects will be essential to understanding the impact of their actions and their influence in the society.

3.3.5 Knowledge

A resource use in this research to complete the framework of governance networks and discourses in urban agriculture is knowledge. Urban agriculture is an activity that relies on attracting actors to the networks due to the production of certain discourses and increasing the actors' connections by sharing common experiences between the members. Therefore, knowledge is an integral part of networks and discourses. As Rydin et al. (2007) mention, knowledge is embedded into networks of relationships between actors. Indeed, Leta et al. (2018) explain that knowledge is entwined with power dynamics since it benefits individuals in negotiations and strategies and makes individuals influence others' understanding. This research is interested in the 'lay' or non-professional knowledge accumulated by individuals or groups. It results from direct experience of engagement with other actors over time, rather than from training or education, and holds the same authority and expertise as professionals knowledge (McEwen and Jones, 2012). For Moran and Rau (2016), people's views of the environment and sustainability are intrinsically related to how they interact. McEwen and Jones (2012) mentioned three types of knowledge in environmental research that do not come from technical knowledge but should be recognised and explored. The first one is indigenous knowledge which has been passing down and developed for generations. The second is individual and community knowledge, which they develop about their territory during their time there. The third is from people's hobbies and passions, which they have opted to learn due to their interest. This research is

interested in the first two knowledges of urban agriculture and how they can incorporate into networks and actors' discourses. McEwen and Jones (2012) and Moran and Rau (2016) noted that people expertise are backed up by the connection to local places, values, heritage and social and environmental practices.

An approach that has significant meaning to urban agriculture due to its origin from the civil society, indigenous and local people is proposed by Wynne (1996). His approach to knowledge recognises the relevance of engaging with local people who have everyday experience due to their close relationships with the environments they live and use. The author explains his approach by describing how scientists ignored local knowledge of farming conditions and provided incorrect assessments of future conditions of contaminated land. Wynne (1996) points out that by including farmers knowledge about sheep ecology and behaviour, the scientific assumptions would have been different because, in this case, the farmers' experience exceeded the scientists for those specific areas. Indeed, UAPs work supports the sharing of local experiences and expertise of the civil society about allotments. For the same reason, it is too simplistic to set a hard line and refer to one group as experts and the other as lay experience because, despite the lack of formal qualifications, members of the public have "special technical expertise in virtue of experience that is not recognized by degrees or other certificates as 'experience-based experts'" (Collins and Evans, 2002, p.238). The relevance of this approach for this research is the inclusion of local expertise and experience in the knowledge debate, emphasising the social construction of knowledge.

According to Castán Broto (2012), contextualised understandings of environmental issues from the community should not be dismissed by policymakers and scientists as unscientific or inferior because it may provide valuable contributions to explain local problems despite their lack of professional competencies. Indeed, giving local actors a more legitimate role in environmental decision-making can lead to outcomes that recognise everyday practices and social relations within the community (Moran and Rau, 2016). The contribution of lay knowledge can be very significant, as people at the local level often better understand their local environment's real potentials and limitations. Lay knowledge is not necessarily opposed to expert knowledge because both types are constructed within a social context. Thomas et al. (2020) explain that it

is essential to recognise that knowledge is produced, shaped, shared and exchanged within a specific context, area, and culture. Urban agriculture in the Global South, specifically Latin America, has a different cultural and social background than the Global North. Its particularities regarding creating and circulating relevant knowledge in the study of urban agriculture in a Latin American country need to be understood. As Chile has a cultural and historical heritage that includes its indigenous, rural, and colonised past, which affects its knowledge' formation. As Rydin (2016) mentions, this refers to more than the linguistic part of the dialogue but to a difference in the experience that must be contextualised and understood when analysing governance networks and discourses.

The production and reproduction of knowledge and discourses are related to social learning and the presence of a community of practice. Social learning describes a process in which people learn from the experiences and decisions of others in both formal and informal learning settings (Munshi, 2004; Leta et al., 2018). In informal environments, learning is achieved spontaneously from daily experiences where "people unintentionally share knowledge and experiences among themselves" (Leta et al., 2018, p.471) during conversations, interactions and work, since it is within interpersonal information exchanges where behaviour change begins. Urban agriculture usually generates conversations and exchanges information about allotment techniques while working in the land. This process can help marginalised groups in knowledge generation and governance processes (Shaw and Kristjanson, 2014). Through this environment, individuals acquire new patterns of behaviour by observing the behaviour of others, imitating roles models or interacting within a group (Leta et al., 2018), but also the groups share resources and patterns of behaviours within a network to change and impact others (Opitz et al., 2016) because learners emulate not only the behaviour of individuals but also of social groups (Stone, 2016). However, despite its contribution to learning and knowledge transfer, informal social learning is often not recognised as a complementary learning approach to formal knowledge transfer efforts (Leta et al., 2018). This approach is significant for UAPs since part of their work teaches people about the topics related to the allotment, and they do so by incorporating the members' experiences.

The community of practices refers to a group of people with varying degrees of expertise based on a common interest or concern to work in a shared learning mode (Gonzalez et al., 2012; Leta et al., 2018). Like urban agriculture members and participants who gather with the allotment as the main point of interest. It is considered an essential aspect of practice-based learning and helpful in understanding social learning processes, identity formation, local practice, and indigenous knowledge (Oreszczyn et al., 2010). Members do not necessarily work together but form a common identity through their common interests and interactions (Oreszczyn et al., 2010). The strength of a community of practices lies in continuous learning and the active participation of its members in social interactions, conversations, teamwork and mentoring, all typical activities where the experience of being in a community is lived (Leta et al., 2018; Hudson et al., 2019). Special attention is paid to the interactive exchange of knowledge and building relationships that allow them to learn from each other and, as a result, improve understanding and practice on a given topic (Gonzalez et al., 2012). Despite the apparent closeness of the relationships required for the formation of common knowledge, it may be the case that members are aware of each other but never meet, or perhaps do not know each other but share knowledge and identity (Oreszczyn et al., 2010; Cross and Ampt, 2016), and continue to cultivate the community through specific meetings or members sharing content and providing advice. Hudson et al. (2019) explain that three elements characterise the community of practices: a shared domain and a commitment to that domain; communities created to pursue common interest; and members develop shared resources, experiences, stories to address issues. Urban agriculture forms a community of practices about a common interest sharing their experiences about gardening and sustainability.

This literature review identified two gaps related to the contribution of governance networks and discourse analysis to urban agriculture research. The first gap is the recognition of the characteristics of governance in a Global South country that is deeply influenced by neoliberalism. Some authors mention that governance does not behave the same in all countries. Indeed, it shows differences even at the city level according to the municipalities' political views (Ambrose-Oji et al., 2017; Torfing and Sørensen, 2017). In Latin America and Chile, governance has been influenced by a robust public-private connection and high levels of poverty and segregation caused by the strong implementation of neoliberalism. Hence, it is important to consider the local

circumstances of Santiago that modify governance and differ from the classic examples in the literature. The second gap refers to the use of governance networks and discourses for the analysis of urban agriculture. Both methods provide information on the connections between actors, providing a more robust analysis than just governance networks to explain the phenomenon of urban agriculture in Santiago. Indeed, Zunino (2001) recognised the usefulness of structural and discursive associations to understand new instances of public-private governance and neoliberal discourses. Zunino and Hidalgo (2011) explained that governance networks are becoming complex, and there is clear ignorance in Chile about the power relations that sustain them. Hence, the integration of two theories adapted to the local situations to identify connections and motivations.

3.4 Chapter Conclusions

Through the literature revision, this chapter explored the main theories and concepts supporting the study approach of network, discourses and knowledge formed by the actors participating in green areas projects in Santiago.

Governance networks allow actors to actively participate in negotiations to produce public regulations and solve environmental problems. In these networks, actors transfer resources, knowledge, and experience on a more horizontal and egalitarian level than in traditional government structures, characterised by monopoly and hierarchy. However, networks can be manipulated by specific, powerful actors if they are not carefully managed. Powerful actors with greater resources can influence discourses and story-lines to manage networks. They have the capacity and knowledge to change the attitude of other actors positively or negatively. This is relevant for the analysis of urban agriculture, as some projects are developed by members of civil society, which has historically been marginalised from decision-making spaces. Using a governance network in the analysis of UAPs should provide a broader spectrum of information on the different actors involved and related to the projects. Governance networks could be used to identify the actors involved in the projects, the connections established between internal and external actors, the organisational structure, the asymmetries between actors in terms of decision-making or resources allocation, the

leaders or actors that bring together the greatest number of connections, potential conflicts and the directions of the planning process.

Discourse allows actors to place themselves and others in categories based on context, cultural background, place, and time. Despite the different definitions in the literature, Hajer's is the most relevant to the research because it incorporates the concept of discourse coalition, a common type of connection established when pursuing a goal in social and environmental policies. Story-lines and discourse coalitions complement the narrative that actors try to project when debating the environment with other actors. Story-lines are a combination of different discourses used to pursue an agenda and influence actors during the decision-making processes. Although discourse coalitions are formed around a set of story-lines accepted among different actors, story-lines are the glue that connects and maintains actors in the coalitions and the main source for the discourse formation. The different concepts function as complements to governance networks to reveal the actors' relationships, administrative structures, and the discourses and stories that flow through the networks.

In synthesis, the research aims to fill some of the still unexplored gaps in governance networks and discourse analysis to analyse urban agriculture and its actors. Knowing more about networks actors in urban agriculture is important because it will show the extent of UAPs involvement with other actors in society and evidence potential areas for networking or gaps that could be addressed. Also, knowing more about the actors in the networks could show the potential of these networks to address other social problems depending on the actors they decide to connect, showing the areas they are more interested in according to the actors they engage with. Both concepts, governance network and discourse analysis, would be a good integration for the research by providing structure and sequence. Therefore, this research seeks to understand whether discourse analysis can interpret the patterns and structures of networks, whether discourses can describe the specific actors integrating the networks and whether it can compare the discursive profile of several actors. These theoretical questions will be discussed in Chapter 9, after the empirical chapters.

Chapter 4. Methodology

4.1 Introduction

This research investigates the changes in networks, discourses, and story-lines resulting from the emergence of UAPs in Santiago de Chile. The previous chapters addressed the main concepts that frame the research: governance networks, discourses, and knowledge. Specifically, Chapter 3 shows that networks play a relevant role in revealing the relationships between actors and helping circulation discourses and knowledge. However, from the literature reviewed, a research gap was identified related to the use of governance networks and discourses to explain the role and relationships between UAPs and the actors that relate to them in a neoliberal context. Further research is needed to fill the knowledge gap, which implies conducting empirical research on UAPs in Santiago. This chapter looks at how this research is designed to address this research gap. Therefore, it presents a case study approach that focuses on Santiago and considers UAPs as embedded units of analysis. To understand who is participating and how and why they are connected, a mixed-methods approach was used. Data from interviews were processed using thematic analysis to identify patterns in the data related to urban agriculture. Discourse analysis was used to determine the main discourses and story-lines, including those concerning knowledge claims co-produced by actors involved in urban agriculture. Lastly, SNA was used to identify the connections that shape the interaction formed between actors related to the UAPs. This research involved a desk-based stage used to select participants and the research adopted; fieldwork to collect empirical data; and data processing, which

involved analysing the collected data and writing up the results. All these steps are described in this chapter.

4.2 Research Approach

In this research, I developed a case study research approach to explore the specifications of networks, discourses and story-lines resulting from the emergence of urban agriculture in Santiago. A case study research is "an empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident" (Yin, 2009, p.18). It helps to understand complex issues and adds strength and further validation of what is known through previous researches (Yin, 2013). In this research, as shown in Figure 1, I used a single case study with embedded units of UAPs to obtain an overview of the networks, discourses and story-lines co-produced by actors involved in urban agriculture, providing answers to the research questions. I also used explanatory research to provide a more in-depth and detailed examination in an area with little research. This is done by documenting a set of outcomes and explaining how those outcomes were produced. The empirical research conducted in this investigation followed the qualitative exploratory case study research model. Multiple sources of evidence were used in each of the cases to ensure that the conclusions drawn were based on the most consistent explanation with the facts.

For the data analysis, I used a combination of SNA and discourse analysis to understand urban agriculture better. SNA focuses on the structural part of the networks, showing relations and patterns between actors. Discourse analysis focuses on the networks' interpretation by explaining the content of the relationships, describing the social relations and discourses, and providing meaning to the actors individually. For the identification of the discourses, thematic analysis was used as a support of discourse analysis.

Stage	Methods	Research Questions
Problem	How has the emergence of urban agriculture projects in Santiago de Chile co-evolved with the networks and discourses of actors with respect to neoliberalism?	What are the roles and networks of the different actors involved in urban agriculture in Santiago?
Study Case	Single Case Study with embedded units (UAPs Santiago)	What are the main discourses and story-lines co-produced by the actors involved in urban agriculture and their relation to neoliberalism?
Participants	• 19 UAPs in Santiago • 5 municipality directors and planners • 7 experts in sustainability, planning and urban agriculture	How have the networks and discourses of urban agriculture projects in Santiago been affected by neoliberalism?
Data Selection	• Semi-structured interviews: 28 interviews to 40 people. • Site visit and on-site observation • Secondary data: documentary analysis	
Data Analysis	• Quantitative analysis: Social Network Analysis. UCINET 6.700 • Qualitative analysis: Coding (hybrid system of inductive and deductive identification, thematic analysis). NVivo 12	
Results	• Identification of social network and central actors related to urban agriculture • Identification of discourses and story-lines of UAPs • Analyse the networks and discourses to understand the effect of neoliberalism in urban agriculture	

Figure 1. Research Methods used in the research. Source: Author's elaboration.

4.2.1   Setting and participants

This subsection explains the reasons for selecting the case study, its embedded units of analysis, and interviewee sources for this research. The criteria for selecting the case study were that it corresponds to a city where neoliberalism began, and it has many UAPs and actors that support the allotments. Interview participants were selected considering their knowledge of the case study, their participation in social networks and the activities of UAPs. Following these criteria, three interviewees were considered for this study: scholars, municipality actors, and UAPs. In the following paragraphs, the justification for the selection of the case study and participants is detailed.

Selection of case study and embedded units of analysis

Santiago's choice as the case study resulted from three main reasons, which presented an opportunity to delve into the link between neoliberal policies, urban agriculture, and planning. First, the selection involved the city where one of the earliest experiments in neoliberalism originated, which has not been studied along with urban agriculture in the literature. Second, the spread of urban agriculture is more noticeable in the big metropolitan area, providing a range of different projects established in different geographical locations and socio-economic situations to obtain a clear overview of the situation. Third, the capital area offers a wide range of actors from different areas that help understand the groups' relations with the other actors. This case study was also selected due to the researcher's intuition, prior knowledge, and accessibility to the field's geographical location and online information.

Santiago is the capital of Chile, and therefore it is the political, administrative, and economic centre of the country. Administratively, the country is divided into regions with Santiago as the centre of the *Región Metropolitana* or Metropolitan Region, geographically located in the country's Central Zone between the Chilean Coastal Range and the Andean mountains. The Metropolitan Region comprises 52 municipalities distributed over six provinces: Santiago, Cordillera, Chacabuco, Melipilla, Talagante and Maipo. It is the smallest region in the country with 15.209 km^2; however, it concentrates more than 7 million inhabitants (2017), almost 40% of

the national population. Santiago urban area is called *Area Metropolitana del Gran Santiago* or Metropolitan Area of the Great Santiago. It refers to the agglomeration of municipalities that conform to the metropolitan city of the region. It covers 34 municipalities within Santiago's province and some adjacent provinces, as Figure 2 shows. Each of these municipalities works independently with a mayor as the local authority. Municipalities elaborate on their plans using two instruments: the local Communal Regulatory Plan (*Plan Regulador Comunal*), which identifies the density of uses and defines the land for new green areas, and the Metropolitan Regulatory Plan (*Plan Regulador Metropolitano*), which zones the land giving much freedom to the real-estate developers (Contreras et al., 2016).
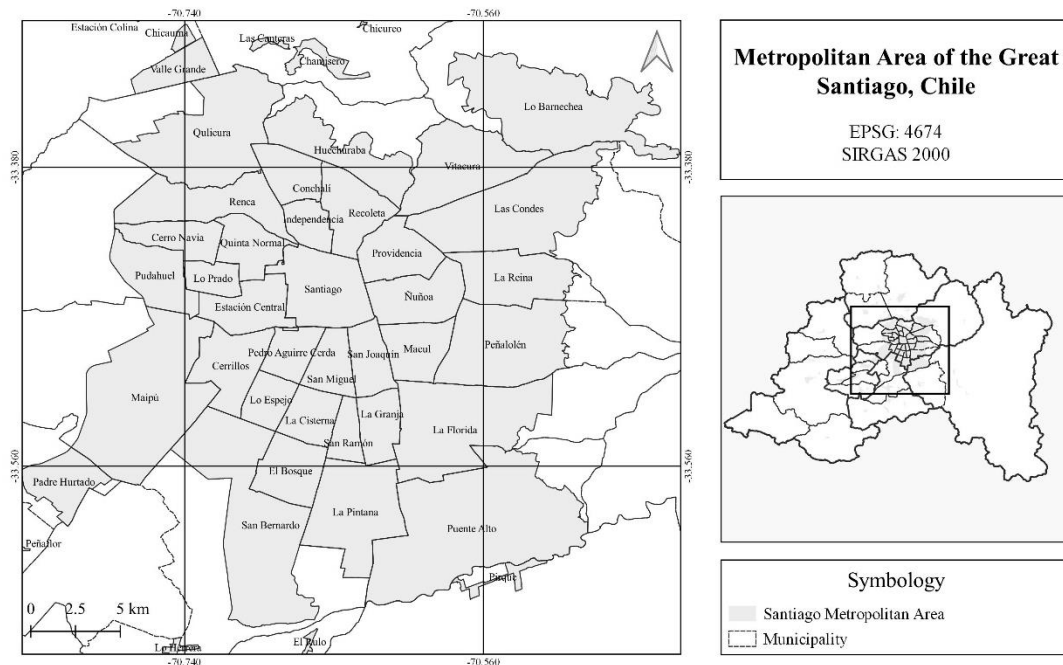
Figure 2. Map of the municipalities that form the Metropolitan Area of the Great Santiago. Source: Author's elaboration.

The Metropolitan Area of Great Santiago has been affected by neoliberalism's consequences and market participation preferences. After the implementation of market-oriented policies and planning, Santiago went through a rapid process of urbanisation with changes in land use and urban morphology that reduced the city's environmental quality, vegetation cover, and open green areas available to the population (Weiland et al., 2011; Huck et al., 2012; Reyes-Paecke and Pavez, 2016; Picón et al., 2017). During the dictatorial period, the liberation of Santiago's urban limits caused an uncontrolled expansion of housing projects that decreased the

91

quantity and quality of green areas. The lack of national and local legislation regulating planning and urban nature protection has worsened this situation (Contesse, 2014; Fuentes, 2014). At the national level, institutions cannot address the complexity of green areas or urban agriculture planning and management without modifying the current legal framework. Agricultural lands outside urban areas were particularly affected by the deregulation of agricultural policies (Picón et al., 2017), which increased migration from the countryside to the city.

Santiago is characterised by very rapid urbanisation attributed to megacities (Weiland et al., 2011), dramatically affecting land and population. Indeed, Santiago has a high degree of disparity segregated by extremely variable income levels. The spatial distribution of green areas is also highly correlated with residents' income level: and the higher the income, the higher the land cover of green areas per inhabitant (de la Barrera et al., 2016). This occurs mainly because the construction and maintenance of the green areas depend on the municipalities' funding, which has generated inequality between rich and poor municipalities in the quality and quantity of green areas (Colodro, 2016; Reyes-Paecke and Pavez, 2016). The poorest municipalities have more difficulties with green areas because even if they have the funding to create them, they lack resources to maintain them (Ceballos, 1997; Contesse, 2014).

Selection of Participants

The number of interviewees in this research was 40, out of which 28 were from UAPs, seven were scholars and experts, and five were municipality actors[12]. According to this research's objectives, the inclusion of different actors was carried out to understand the social networks and the discourses of UAPs. Including various actors ensures that the phenomenon is analysed from different perspectives, especially considering that the discourses and networks are produced by actors in a specific time and place, exist about others and include references to external discourses. The objective of interviewing scholars and experts was that their academics' research was

---

[12] Two interviews from experts were discarded because they did not provide relevant information for this research. One was from the sustainable department of a university, and the other a foundation that creates parks. Also, one group was considered in the expert category instead of UAP because their allotment was not open to the public, and it was in a peri-urban/rural area. The interview was not discarded because the group was repeatedly mentioned as a referent in urban agriculture by other interviewees. In total, 27 interviews were analysed for this research.

significant to this research topic. For the same reason, they were identified by purpose sampling under the following criteria: scholars must have research and published material about green areas, Santiago, and planning. The municipalities were identified through purposive sampling, contacting those where the interviewed UAPs were located. Just 5 of the 13 municipalities replied to the invitation to interview, which corresponds to 38.5%. Their inclusion aimed to obtain the municipal and state perspective on UAPs and understand its role in supporting the groups work.

The selection of UAPs was to obtain relevant first-hand knowledge about the formation, maintenance, perceptions, knowledge, and opinions of the members about the environment, neoliberalism, and actors, and to identify and contact other groups. The first selection of the UAPs started by doing an Internet search. An open-access online database by Germina La Florida[13] that catalogued UAPs was used to initiate the first selection of groups to interview. However, the information was old, incomplete, and included inactive groups. The list was narrowed down to those with visible contact information and a webpage on Facebook, Twitter or Instagram to check their activity status. The criteria for sampling before data collection was: the accessibility of data and information of the projects since many of them do not have a digital presence; a longevity minimum of two years to guarantee they have experience; and, at least, one post on digital platforms in the last year to ensure that groups remain active. During fieldwork, the criteria for sampling were based on the accessibility of contact information and the interviewees' knowledge about UAPs activities. An exception was made during the sampling, as a recently formed group was included due to their valuable information. The research included 19 UAPs (Figure 3).

The sample was heterogeneous in location (Table 1) and size, which helped understand the intra and interrelations formed between the different projects and actors. A description of all the groups interviewed can be found in Appendix 1.

---

[13] The online database was available until 2020, but it is no longer accessible.
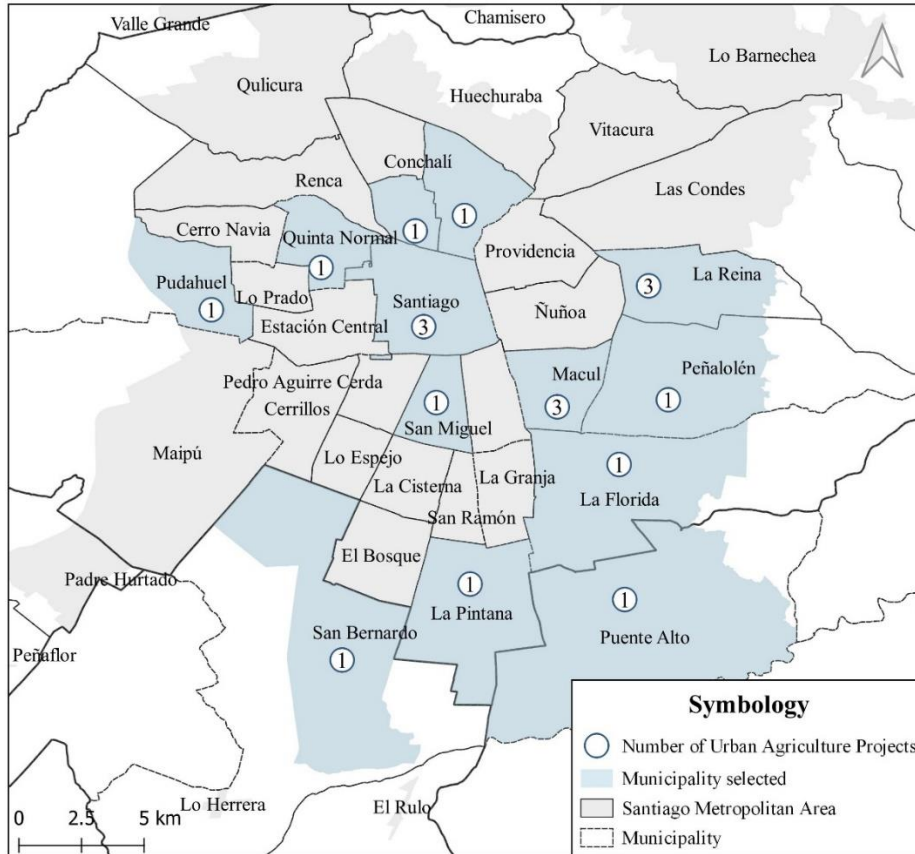
Figure 3. Map of the Santiago Metropolitan Area, including boundaries between municipalities and location of the selected UAPs. Source: Author's elaboration.

Table 1. Overview of UAPs embedded units of analysis.

UAPs	Year	Municipality	Location
Huerto Comunitario Pu Pichikeche	2014	Independencia	Pericentral
Huerto Comunitario La Berenjena	2012	La Florida	Periphery
Huerto Popular Observatorio al Sur	2013	La Pintana	Periphery
Huerta Comunitaria Las Campanas	2018	La Reina	Periphery
Huertas Urbanas de La Reina	2001	La Reina	Periphery
Huertas Vecinas Antu-Newen	2013	La Reina	Periphery
Biohuerto UC	2006	Macul	Pericentral
Ecobarrio Villa Santa Elena	2014	Macul	Pericentral
Huerto San Francisco	2015	Macul	Pericentral
Herbarium	2000*	Peñalolén	Periphery
Huertablock	2016	Pudahuel	Periphery
Huerto Comunitario Mapu Wangulen	2013	Puente Alto	Periphery
Huerto Urbano Yungay	2011	Quinta Normal	Pericentral
Viventerio	2014	Recoleta	Pericentral
Ecobarrio Patrimonial Yungay	2014	Santiago	Central
Huerto Comunitario FAU	2008	Santiago	Central
Huerto Libertad	2015	Santiago	Central
Fundación Mingako	2017*	San Bernando	Periphery
Cultivo Sustento	2012	San Miguel	Pericentral

* Year when the allotment was first opened to the public.

Source: Author's elaboration.

4.3 Data collection methods

This subsection discussed the instruments used to collect data. The main method of data collection used in this research is semi-structured interviews. The interviews were directed to selected key actors, defined as those with specific knowledge about the phenomena being researched, through their role in the creation, production, reproduction, circulation of networks, and discourses in UAPs.

4.3.1   Semi-Structured Interviews

Interviews are a vital tool for collecting data in qualitative research. They allow the interviewer to understand the interviewees' opinions, attitudes, experiences, and feelings. In particular, semi-structured interviews offer structure whilst being flexible enough to allow interviewees to 'speak their mind', leading to unanticipated ideas. Therefore, they are an appropriate method to gain in-depth insight into issues that are not necessarily widely documented or written. Semi-structured interviews were the most appropriate data collection method to approach the information, representations, and experience of those who create, organise, and maintain UAPs. The interviews were conducted using an instrument for the collection of data created based on a theme list that included all the main theoretical aspects of governance networks (networks, trust and actions) and discourses (story-lines and knowledge) while proposing questions to understand the local context (neoliberalism, urban agriculture and sustainability) (Table 2). However, the instrument was adapted after the first interviews to capture the actors' information better. Many questions were discarded to make the instrument more precise, and other questions were included to cover areas that seemed relevant for the research and were not considered before.

Despite the changes, the general topics considered in the original instrument were maintained to ensure overall consistency and general structure in the interview approach (interview guides in Appendix 7). The semi-structured interviews' flexibility allowed the adaption of questions to specific interviewees to capture their different position. Although most of the questions were contained in these themes, the interviewees also raised new ideas and themes during the interviews, like education

and territory concepts. Once in the analysis phase, the themes' number and organisation did not remain the same, and it was adapted to capture the new concepts.

Table 2. Thematic guide for interviews and analysis.

Macro Themes	Categories	Items
Context	Sustainability policies	Legislation on green areas
		Santiago's urban sustainability policies and situation
		Governance in Santiago
Networks	Social identities	Network members
	Networks	Coordination mechanism
		Collaboration
		Corporatism
		Participation in network
		Resources
		Role of actors in networks
		Role of the private sector, state and civil society in the green areas
		Knowledge
		Leadership
Discourses	Actors' story-lines	Perception of the environment
		Perception of urban agriculture impact
		Discourse coalition
	Neoliberal discourses	Neoliberal discourses
		Environmental discourses

Source: Author's elaboration.

Contacting Participants

Interviews were conducted in Santiago between November 2018 and April 2019. Interviewees were contacted in different ways depending on their role. There were three types of interview sources: scholars and experts, municipality actors and UAPs. This required a different strategy to approach them. A recruitment letter was sent to each scholar and municipality actor to invite them to participate in the research (see Appendix 10). Scholars were selected because they provided a contextual overview of UAPs, the Chilean planning system, and the influence of neoliberalism in Santiago. They were contacted through their institutional emails, which were public in their academic profiles available in the institutions' web pages where they were affiliated. Municipality actors were contacted during fieldwork. Municipalities were interviewed to understand some of the problems raised by the groups and have both perspectives about urban agriculture work in the territory. All planning and environment

departments of the municipalities part of the sampling were contacted, but only five responded and were included in the investigation. In total, I interviewed 12 people between scholars and municipality actors.

The members of UAPs revealed the actors' narrative on the origin and development of the projects, perception of the roles and information networks, and environmental and neoliberal discourses. UAPs were identified using purposive sampling and snowball methods to reach UAPs from different geographical areas. Most of them were contacted before fieldwork through an internet search in an online database and on Facebook, Instagram and Twitter. However, the rest were selected by snowball sampling because most did not have a social media presence; therefore, contacting them before fieldwork was difficult. Three groups were contacted after an urban agriculture meeting organised in Huerto Urbano Yungay in Santiago on the 8th of December of 2018, where I could directly obtain the contact information of some of the attendees.

Additionally, to capture each network's entirety and obtain information for the SNA, I asked actors to identify up to three other members with whom they interacted the most and whose interaction was the most important in helping their projects. Open-ended questions were asked when clarity was needed or to guide interviewees on the theme list's topics. Interactions between actors were based on the responses provided during the interviews and desktop research, documents search, and events information. In total, I interviewed 28 people from 19 different groups because in six cases, more than one interviewee was participating in the session, and they were counted as interviewed.

Before the interviews, all interviewees received a hard copy of the information sheet and the consent form explaining the management of confidentiality, anonymity, and identity protection (see information sheet and consent forms translated in English in Appendix 8 and Appendix 9). During the interviews, I asked for their consent to record the audio interview, even if they signed the consent form, to ensure their complete agreement. I used two types of consent during fieldwork. In individual interviews, I preferred a signed consent, but I asked for verbal consent in the case of more than one person in the interview. Later, these interviews were transcribed, and their anonymity was protected by using codes to change their names, despite some interviewees'

interest in having their names in the research. To maintain anonymity in the result chapters, interviewees were assigned a letter followed by a number. UAPs were assigned with the letters CS, scholars with an E and the municipality with a S.

4.3.2   Documentary Analysis

Documentary analysis is a secondary data collection source that allows the researcher to examine, interpret, elicit meaning, and understand the textual material. For my research, I consulted and analysed various documents to collect information about legislation and green areas policies to set the case study context and to clarify data from the UAPs in Santiago. For the contextual level, the main sources of information included official government documents, city policies relevant to green areas, and official web pages. For the projects, information was obtained from social media publications, UAPs reports, and the press. Data about groups was minimal, and the groups mainly produced it on Facebook. Therefore, a documentary analysis was used to complement the research and not as the main data collection source.

4.4   Data Analysis

Data analysis consisted of organising, classifying, and making sense of the empirical data collected. Theoretical concepts and interviews inspired data coding; this is generally preferred for case study research, which attempts to capture a narrative's flow. The interviews were coded[14] based on a hybrid system of inductive and deductive identification of codes and themes based on an initial set of codes and guidelines from Braun and Clarke (2006) on thematic analysis. Two main methods were used in the research to identify actors and structures providing content and meaning to those links. One method was SNA that focuses on the networks' structural side by identifying nodes, links, and positions, which affect how actors access the networks. The other method was discourse analysis, supported by thematic analysis, which focuses on the networks' interpretative side identifying themes and story-lines. Both methods overlap for the analysis of discourse coalitions that traces discourses to

---

[14] I left the text body in Spanish and only translated those text extracts to be quoted in the research. All the codes were named in English. All the quotes from the interviews in this dissertation are my translation and were refined to provide precise quotes.

individual actors, explains their inclusion on the networks and provide meaning to the networks. The use of mixed methods works by potentiating each's qualities, providing significant value to the research. Discourse analysis provides an interpretative approach to SNA, offering an additional explanation about the networks and actors. SNA provides structure to the data and discourses and is grounded to a specific network or actor to make it more accessible. Twenty-nine interviews representing 40 people were recorded and transcribed using NVivo 12, which was used to obtain codes and themes. The network analysis and calculations on density and centrality were performed using UCINET 6.700.

4.4.1 Thematic Analysis

The thematic analysis relates explicitly to the process of identifying, examining and recording patterns in data sets related to a specific research question and describing a specific phenomenon (Braun and Clarke, 2006). It provides a flexible data analysis method that aims to create themes (Braun and Clarke, 2013). The identified themes or codes are abstract categories of meaningful data segments that recur or connect to each other in a patterned way (Buetow, 2010).

I used a hybrid system of inductive and deductive identification of codes and themes based on Table 2 and on Braun and Clarke (2006) guidelines on thematic analysis as they offer an up-to-date description of the method. This entails: (1) familiarizing with the data; (2) generating initial codes; (3) searching for themes; (4) reviewing themes; (5) defining and naming themes; and (6) producing the report. I integrated Buetow (2010) conceptualisation of thematic analysis as 'saliency analyses' to identify the most salient and frequent themes within the data set. This hybrid system allows more flexibility in identifying codes since the researcher can start with a list of codes that are considered relevant to identify in the analysis and allow the inclusion of new codes to expand the list already determined. This ensures that the research's interesting codes will be included in the analysis and any other code that repeatedly shows. During the coding process, I purposely searched for specific codes defined in the theme list. I added more as the list became insufficient to capture the variety of codes presented in the interviews. Already in this part, some themes were evident in the classification of the codes and data. In a second code review, I merged some similar in context and

99

created other codes. After a final review, I established four main themes: social, education, environment, and land (see the theme and code maps in Appendix 6). The identified themes were reviewed, refined, and considered with each other on a theme map. The original interview transcripts were reread to ensure the original data supported the final themes.

4.4.2 Discourse Analysis

In this research, I used Hajer's approach to discourse analysis to identify discourses and story-lines used by actors from different UAP. Based on his work, I defined discourses to mean the conceptualizations that give meaning to physical and social reality; story-lines as the narratives that "give meaning to specific physical or social phenomena" and serves to mobilize the discourse" (Hajer, 1995, p.56); and discourse coalitions as groups of actors sharing a social construction about environmental debates and policy-making. The story-lines analysis decomposes discourse into simpler framings around which actors and institutions organise themselves and create meanings. Actors may not be aware of the discourses, but they may consciously use story-lines to order their experiences and construct reality. By using story-lines, they tap into predominant discourses. Stakeholders can share a specific set of story-lines while still having their own separate interests and their own interpretations regarding the significance of the story-lines (Nielsen, 2016). The analysis was based mainly on interviews and a few documents. Through the thematic analysis of the interviews, it was possible to identify discourses and themes around urban agriculture and the actors that shared such discourse and story-lines.

4.4.3 Social Network Analysis

SNA is a research methodology used to understand the complex multi-level interconnected and socio-ecological process associated with urban agriculture because it focuses on the relationships and flows of information and resources between actors (Glen, 2017). It "provides a rigorous, systematic approach to studying how relations and their structuring influence a range of outcome variables and behaviours" (Bodin et al., 2011, p.19). SNA typically displays network elements, such as actors, links, distance, centrality, and density (Chen and Lo, 2020). The actors are called 'nodes',

and their relationships are called 'links' (Glen, 2017). The node's position and size show the actors' influences (Chen and Lo, 2020). By tailoring questions to network members appropriately, SNA allows determining which organizations are connected within the network, how strong these links are, how resources and information are shared across the network, and how organizations perceive each other.

Density refers to the existing number of links that an actor has, divided by the maximum number of possible links that the actor could have (Bodin et al., 2006; Chen and Lo, 2020). Networks of higher density are considered dense, cohesive (Prell et al., 2011), more conducive to collaboration (Chen and Lo, 2020), and have more potential for collective actions, communication, reciprocity and trust (Bodin and Crona, 2009). Over time, they could contribute to increasing levels of trust and reciprocity between individuals and groups (Bodin et al., 2006; Bodin and Crona, 2009). Although high-density networks could increase access and disseminate information, they could also homogenise experiences and knowledge (Bodin et al., 2006). Large networks have a more difficult time maintaining the high number of links in their networks because the work necessary to maintain all those links connected over time is too large (Prell et al., 2011).

The degree of centrality refers to the number of links an actor has in the network (Bodin et al., 2006; Chen and Lo, 2020). This is done by counting the number of actors directly connected to the focal actor, ignoring the links' direction (Prell et al., 2011). By including the direction in the analysis, the analysis will show the incoming links that the actor received (indegree), identifying the most popular actor, and the outgoing links that the actor gives (outdegree), identifying the most involved or dependent actors (Prell et al., 2011). A high degree of centrality for an actor indicates it has more links than others (Bodin et al., 2006) and is an important actor to mobilize the network and unite other actors (Prell et al., 2009). However, their links are sometimes considered weak, as they require more energy to maintain them. Very central actors may use their links to circulate information, potentially mobilize the group (Prell et al., 2009), and take decisions and actions on behalf of others (Bodin et al., 2006). However, their influence on their connections is not always guaranteed (Prell et al., 2009). Centrality for the entire network indicates the tendency of a few actors to maintain most of the links with others, which could lead to highly centralized decision-

making and lack of access to information sources (Bodin et al., 2006; Prell et al., 2009). The analysis intended to capture the interrelationships and interrelationships between similar main actors and different main actors. The analysis involved the measures of density and centrality.

4.5 Limits of this methodology

Limitations were found at different stages of the research. The first limitations were encountered in the identification and access to UAPs. As explained in subsection 4.2.1, information on active UAPs is challenging to obtain. Most of the groups identified had no contact details, did not reply to the messages or emails, or were inactive. This was a problem during the desk work period, where much time was spent identifying potential interviews. Many groups did not include their addresses on the web pages or the time they worked, so going to the allotments uninvited was difficult. Some worked in the afternoon, others on the weekends, and preferred to avoid interviews during the weekends because it reduced their time for the allotment. One example of the limited information was one UAPs that I was aware of was in the municipality where I was living. However, I could not find where, other groups did not know members I could contact, and information online was missing. Fieldwork was more fruitful as UAPs provided information on active groups and, in some cases, provided their contact information. A similar situation happened with the municipalities; while the idea was to include all 13 municipalities where the groups were located to compare their ideas with the UAPs, this was just partially achieved. Some municipalities did not have the departments' contact information on their web pages, or in the case of those who had it, the request for interviews was not answered. The inclusion of the municipalities provides additional information and another perspective to understand urban agriculture in Santiago. Even if this comparison was made, it would have been more interesting to include more municipalities in the research. Another limitation was that fieldwork was from November to April, which coincided with the summer and two relevant holidays, Christmas and New Year. Many people were on vacations and preferred to avoid the holidays period due to personal time.

A second limitation is related to the information about UAPs. The lack of information meant few articles or reports explaining their work, relationships, or motivations. The

groups' main online platform was Facebook, and most of them used it to post about the current social and political situations, agriculture techniques, and advertisement of workshops. Outside of these platforms, the groups were just mentioned in some news or group pages, but those were the minority, and the information's quality was inferior. The research on urban agriculture in Chile is minimal; there are a few master dissertations based on Santiago and two books covering this topic in the country, which difficult the understanding from different areas.

A third limitation is the size used for the SNA. This research only considers actors whose names were found in the interviews, online platforms and documents. Due to the limited information available about UAPs, the case study's actual network may differ from the one analysed since the participation in the network of other actors may have occurred without leaving a record in the sources investigated. One way to mitigate this was by asking the interviewee to identify actors they relate to or find necessary to the network. However, most did not know how to answer that question and could not name other actors besides those they named during the interview. However, it is considered that the network sample used for the SNA is meaningful, considering the availability of reliable and verifiable evidence of actors' network participation. Nevertheless, I do not claim the interviewees' data represent the whole population or the whole UAPs network that exists, although I sustain the validity of my findings and the explanations about urban agriculture in Santiago.

A final limitation is that using different analysis methods in the research could be challenging, as it involves using different data types and analytical procedures. During fieldwork, the instrument was modified to ensure the obtention of data that would provide information for the SNA, thematic analysis, and discourse analysis.

4.6 Ethics and positionality statement

4.6.1 Ethics

The research followed the appropriate ethical procedures of UCL Research Ethics Committee and the discipline literature. The approval identification number was 13885/001 (See Appendix 8). The research included low-risk ethical standards on

informed decisions about the aims of the interviews, informed consent to be interviewed and/or recorded, right to end the interview at any moment, compulsory anonymity in the report of the research and limitation of use of the interview content only for academic research purposes. According to personal information requirements, all comments and opinions were anonymised and kept confidential. There might be cases where the interviewees could be identified, as few members integrated some groups. It could also happen with the municipal authorities and university professors since their identities and work areas are public knowledge. However, most of them had no problems getting their identity known as they asked to have their name in the thesis. Despite this, the anonymity of all the interviewees was still maintained. All interviewees were willing to participate in the research and gave their consent to be recorded and their information used for the thesis, conferences and papers. None of them asked for their responses to be edited or deleted. The quotes and references selected for the empirical chapters were used with care to avoid exposing the interviewee's identity and taking care that the quotes did not change their meaning when translated to English. All photographs taken during visits in UAPs were taken with the member's permission, and all identifiable people, house names or car plates were avoided.

4.6.2   Positioning

In the following lines, I reflect on how my social position influenced my research, from the selection of UAPs to data collection processes on the field, analysis, and reporting results.

My position from the beginning was very supportive of UAPs and critical of the state's work in sustainable activities. Due to my natural science background and political orientation, my perception has always been more favourable towards community groups, environmental and sustainable activities, and more critical to the state practices and economic system, a relevant part of this research. I was aware that personal biases could interfere in any area or moment of the research by introducing my perspectives over social groups, economic activities or political ideas. To reduce this bias, I tried to be objective and maintain my scientific neutrality and curiosity during the interviews with the actors, asking questions rather than sharing my

perspective. Even when they asked me, I preferred to give them facts and redirect the questions. My role during the interviews was simply to facilitate their responses but not to provide mine in case I unintentionally direct their responses towards positions of support or opposition to other actors. This was more complicated with UAPs, due to my background related to natural science. As a doctoral researcher from a prestigious British university, groups already positioned me as part of their perspective, being curious about the reasons for my interest in the topic and my perspective of the situations.

The literature is very favourable about the work carried out by UAPs. It is an activity that is considered beneficial and positive, and that idea is easily transmitted during the analysis of the data and the production of the results. I was aware that my favourable perspective of UAPs could influence the selection of themes and discourses to those more positive for UAPs and less favourable for the other actors, especially since my research is to understand the relationships and roles from their position. To reduce this bias, I based the coding and narrative processes on the information provided, integrating the good and bad urban agriculture. This was one reason I wanted to include interviews with the municipalities to obtain their side of the story and not only base my analysis on UAPs. The information provided by the municipalities and experts brought stories that contrasted with UAPs and explained some of their complaints, such as the reasons for the lack of support or the problems with the land use. Including more actors helped make the research more robust and decreased bias as the information relies not only upon just one actor's opinion of the situation.

4.7 Chapter Conclusions

This chapter has set out the methodology used in this research. It has shown the relevance of studying the role of networks and discourses in analysing urban agriculture in context. Therefore, a case-study approach with embedded units of analysis is proposed for the design of this research. A case study provides a context in which urban agriculture as embedded units of analysis can be investigated in-depth and within its real-life context. Starting from Chapter 3, which discussed how networks and discourse provide a form to study the roles and relationships between actors, this chapter considers that approach through a mixed method. In this case, the

networks' structure and operation are researched using SNA, while the narratives co-produced and circulated through the networks are researched through thematic analysis and discourse analysis. This chapter also addresses the advantages of using different methods since thematic analysis and discourse analysis explain the reasons for the network structures identified by SNA. This reflects the different dimensions of the case study and the need to use mixed analysed sources to produce a robust and credible finding. Having described the research process, the following chapter analyses the first discourses identified through the analysis.

Chapter 5. Urban Agriculture in the Construction of Social Networks and Discourses

"There is everything, there are younger people, there are older people, there are workers, there are people who work in administrative positions, there are professionals, there are retirees, there is everything, everything, everything, there are families that come with children, couples come sometimes, there is everyone" (Huertas Urbanas La Reina)

5.1 Introduction

This chapter provides some exploratory defining elements to answer the sub-questions of 'What are the roles and the networks of the different actors involved in the development of urban agriculture in Santiago?' and 'What are the main discourses and story-lines co-produced by the actors involved in urban agriculture and their relationship with neoliberalism?' (Other elements about discourses and story-lines are discussed in the following chapters). Specifically, it lays the foundation for the other empirical chapters by introducing the main networks formed by actors involved in the development of urban agriculture in Santiago, the actors' role in the networks, and the reasons for creating the relationships. This information helps to understand better the origin of the discourses and arguments proposed by the UAPs, since they are affected by the networks, the actors and the context where they are co-produced, revealing part of the internal structures of the networks and the key elements that solidify the relationships. The chapter is structured in two sections in which the networks and discourses around the social aspects of urban agriculture are examined. The first section analyses governance networks at different scales: within, between and outside UAPs. Considering the neoliberalism approach that frames the research, the emphasis here is on identifying the connections that shape the interaction formed between the actors related to UAPs from the perspective of the country's economic system. And the second section analyses the main elements of the social discourses produced and reproduced by the different groups. This provides some of the most common

discourses mentioned by the UAPs, which corresponds to some main reasons for forming the allotments. Articulating the findings displayed in this chapter, I propose that urban agriculture was formed with a social objective that was then translated to the connections established with actors from the civil society, the state and the private sector. Networks with neighbours, organisations and other UAPs were often based on a shared perspective of society and the environment, focusing on the local community and regional impacts. In contrast, networks with the state and the private sector were based on financial and technical support, but they were less developed and with some friction and conflicts. Similarly, I propose that urban agriculture is used as a form of resistance and empowerment amiss the current neoliberal socioeconomic model established in Chile.

5.2 Governance Networks in urban agriculture

In this section, I analyse the relevant networks formed between actors related to urban agriculture to understand the dynamics created by UAPs and actors, their roles and responsibilities in developing the networks and the type of governance that is formed between the groups and actors. In their narratives, different UAPs recognised urban agriculture in Santiago as a space for social connections that brings together different actors. However, the relationships established had unequal levels of closeness and trust influenced by the type of actors that were part of the networks. Therefore, the social networks analysis was separated into three levels: within UAPs, between UAPs, and other actors. The emphasis was on the main connections and actors involved at each level and the reasons for their relationships.

5.2.1   Social networks within UAPs

Members of urban agriculture are the key social actors that keep groups and networks running and expanding. Although the research uses UAPs as embedded units of analysis, the members are an essential part of the networks between UAPs to analyse, providing knowledge and narratives that form the groups' integrity. In this subsection, UAPs are analysed to understand the particularities of their structures, formations, and scopes.

Group Structures

The social focus of UAPs and their rejection of the vertical and segregated structure of the socioeconomic system motivated them to opt for a horizontal organisational structure in the management of their allotments (CS1, CS10, CS11, C12), offering members equal opportunities to participate in decisions about activities, projects, and connections. This proposed horizontality allowed natural roles to appear within the members, who began to act as representatives in certain activities due to their knowledge of the subject or their affinity with the people involved (CS11). Most of these roles had a coordination function based on the members' proactivity that did not translate into a permanent position of the leaders since their position was temporary and for some activities only. According to CS1, the horizontal and equal-opportunities structure of these UAPs created open and honest spaces for fruitful political and social participation that did not exist in society. Indeed, the interviewee explained that these open spaces allowed the relationships between people from different backgrounds who otherwise would not have the same platform to interact: *"I force myself to live with people who are not equal* [to me]*, who do not think the same as me, but we are united by this same thing, this same space, this idea of circularity, of this welcoming space"* (CS1). Unlike other organisations, this structure adopted by the UAPs worked with and not despite the differences as a unit towards achieving a common objective in the same territory.

Group Composition

UAPs are formed by people who work in the cultivation of vegetables and participate in activities and events. The frequency of their participation led the groups to categorise them as members or participants. Those who actively participated in the allotment and worked frequently were called members, and those who only visited during events and workshops were called participants. This division accentuated the difference between the work of the sporadic and established members of the groups. On average, UAPs had eight active members participating in the allotments (Figure 4). The lowest number of active members corresponds to two groups that used urban agriculture as a complement for their main sustainable activities, and therefore, had more members integrating their organisations than working exclusively in urban

agriculture, such as the case of Fundación Mingako, an eco-educational group and Colectivo Sustento, a social and environmental NGO. The largest number of active members corresponds to Biohuerto UC, a university allotment formed, integrated and managed by students who actively participate during the academic year. The other three allotments, Huertas Vecinas Antu Newen, Huerto Comunitario Las Campanas and Huerto Comunitario La Berenjena, were created in public spaces by neighbours to change the appearance of the neighbourhood parks that were vandalised or used as a garbage dump. Their visibility encouraged the residents to be active members of the groups.
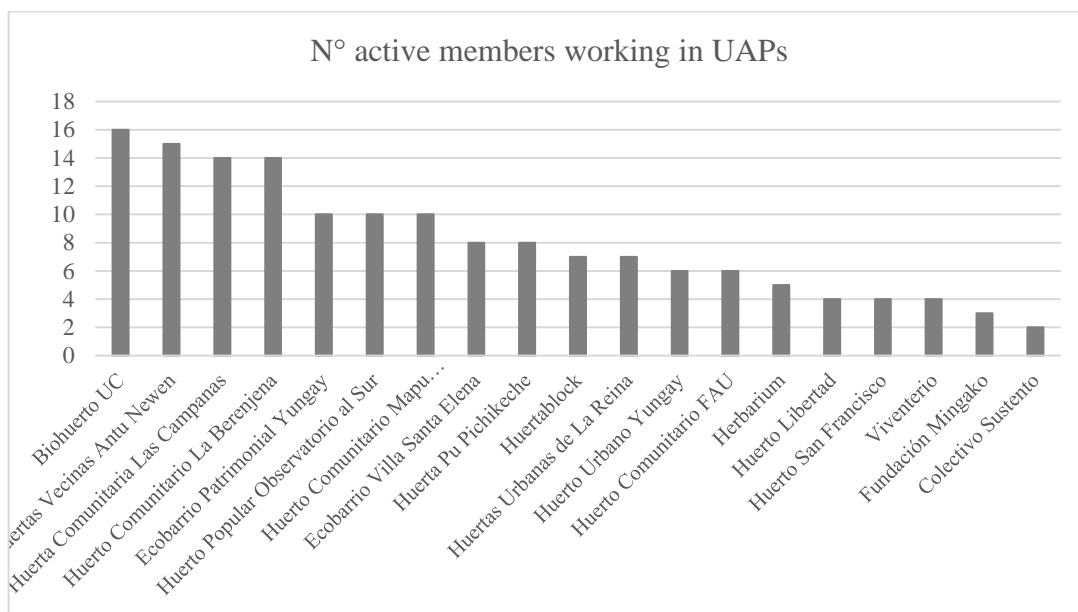
Figure 4. Number of active members working in UAPs.

Unlike the number of active members, which remained stable during the time, the number of participants fluctuated during periods, either due to the organisation of workshops or events that attracted people to the allotments on specific dates or due to the weather and the temperature of the seasons. Huerto Comunitario Mapu Wangulen mentioned this difference: "*Now, uh, within the most established organisation, we are ... about ten people, yes, seven to ten people, and there are some that transit, such as coming only to the workshops or appearing suddenly and then leaving*". This was also noted by Huerto Comunitario La Berenjena when they said that people "*always fluctuate, those who are participating are about four, more present, but around that circle are about ten*". UAPs located in universities were integrated mainly by students who participated in the allotments during their studies because very few maintained

their connection after graduation. The allotments' location allowed students to have permanent access to work at any time, which became more challenging when the students graduated since they had to travel to the universities to participate in the allotments. When the participation was low, UAPs opened the allotments so that the university staff and the residents of the surrounding areas could participate and maintain the allotment alive. Huerto Popular Observatorio al Sur mentioned:

> *this year 2018 there was a change, there were many people who were from the university who left because they finished their degree,* [they left] *for a new adventure and then, as the number of people in the university decreased, … neighbours were integrated into the organisation.*

A similar situation happened in another university allotment, Huerto Comunitario FAU, when:

> *in some years, professors have also participated here, architecture professors generating workshops about construction with mud I remember, several things that are in common with the allotment, so it has not been just students, just as other people have participated during the years.*

One of the experts interviewed analysed community participation and noted that these initiatives had higher and lower participation cycles, especially if they had a strong person working as a core because when that person leaves, the initiatives usually decline. Directing the activities of UAPs to different participants and avoiding raising strong leaders could allow the allotments to last longer despite the participants' fluctuation. Indeed, the pressure on a small group of members could jeopardise their continuation due to stress, conflicts or lack of communication and support.

Despite the diversity of activities offered, Huerto Comunitario Pu Pichikeche observed a relationship between the participants' age and the activities attended. The children participated in the practical activities offered by the group that involved working with soil; youth and adults attended workshops and worked in the allotment; while older ones preferred more passive participation where they took herbs, spent time in the space, assisted to events and asked questions, but they rarely participated in workshops. It was often mentioned that participants interested in specific workshops visited the allotments to learn a technique or topic, but they did get involved for longer than the specific visit. People interested in gardening worked in the allotments temporarily until they felt they achieved their goals and then left. This casual

participation limited the opportunity to connect these sporadic participants to the allotments, hindering the maintenance of the space and adding more pressure to the more involved members.

The temporary permanence of the participants was also influenced by the seasons. Summer was a period of hard work in the allotments since vegetables needed to be watered every day due to the high temperatures of Santiago, but in that period, *"participation is lower because it is very hot, and nobody likes to work in the allotment"* (Viventerio). Summer was also when people were on holiday, left the cities or chose to spend their free time with their families, reducing participation in UAPs. This situation was seen in the university allotments where students had long summer vacations, and their absence was more notable. Students usually took turns to water the allotments or asked the faculty or university gardeners to help watering when they could not go. Winter was when the workload decreased since allotments only needed maintenance; however, people were less interested in working due to the low temperatures since all the work was done outside. CS26 mentioned that during winter, in "*some workshops we can have 20 people, as in other workshops we can have two because that day it rained",* and their allotment was in an open area. CS2 also explained that only a few members were gardening during fall and winter, and even for them, it was difficult to work due to the low temperatures. UAPs were aware of these fluctuations and understood that participants' enthusiasm was temporary. However, they recognised that their allotment participation was essential for its maintenance and development, especially when the members could not do all the work the allotment required.

Most UAPs considered human capital as a strong limitation for continuing their work since they depend on volunteers, and their absence could result in the project failure. However, their perspective about the work in the allotment differed. Although most groups had volunteers who maintained the allotments and offered workshops, some UAPs had paid workers who did the work (Fundación Mingako, Huerto San Francisco, Herbarium and Cultivos Urbanos). These groups were considered more private allotments than the other groups in the research. They were located in private areas, had other activities besides urban agriculture and were open only during certain days. Some of the workers were hired to maintain the allotments and open the space for

people to work. Others were hired to work on the administrative, financial and operational part of the allotments. Huerto San Francisco mentioned that because they were a university allotment, they knew that the students would not participate during exam weeks. If they did not pay someone to maintain it, the allotment would die. Likewise, Fundación Mingako explained that since they allowed people to work in the allotment only during some days, they needed workers to maintain it when the space was closed to the public. Despite this, salaries were usually low and came from products sales, donations and workshop fees.

Member location

The scope of UAPs generally exceeded the neighbourhood where the projects were located and reached the Metropolitan Area, despite that the main interest of the groups was to work locally and impact the closest neighbours. UAPs recognised the lack of opportunities for people to meet and work together as one of the main reasons for the community's disconnection. They perceived the allotments as places to begin to create those lost connections. As explained by an interviewee:

> *Now we wanted to do it in the municipality because we want to be an engine within the municipality in relation to community sustainability. We are looking for municipal activities and municipal organisations to make ourselves known and to ultimately achieve the generation of collective knowledge around what is sustainability and how we want the sustainability of San Bernardo in particular, but the Foundation also looks for projects outside* (Fundación Mingako).

This idea of creating a central space for the community was especially relevant in low-income communities where access to the type of activities provided by UAPs was rare. Most UAPs started with the intention of fomenting community in the neighbourhoods. However, they realised the need for people's knowledge and expanded their objectives to educate them and make them part of the allotments. Although most groups wanted to involve the neighbourhood in their activities (CS1, CS5, CS6 and CS13) and considered their closest neighbours as their main objective, their use of social media to advertise their activities and events attracted people from different municipalities, sometimes even from the other side of the region (CS6, CS7, CS10, CS13, CS14, CS17 and CS26): "*Our idea was to start working with the neighbourhood level, but it happens that, with activities, especially when we advertise the workshops, 60% of people are from other municipalities*" (CS2). As the interviewee mentioned, the

participation of people from outside the neighbourhoods and the municipalities was common. Even the allotments located within the universities noted 80% of external participants in specific events. This reflected their level of willingness to travel long distances and visit allotments in other areas just for acquiring knowledge. In many cases, these UAPs offered a series of workshops that covered various topics for free, while usually, people would pay for private workshops to receive the same information. Figure 5 shows some of the trips mentioned by the interviewees. Some of the most notorious cases are those participants travelling from Puente Alto to Independencia, from San Bernardo to Santiago, Maipú to Recoleta, Puente Alto to Pudahuel or Pudahuel to Recoleta, trips that have a duration in between forty minutes to an hour and a half in public transportation.
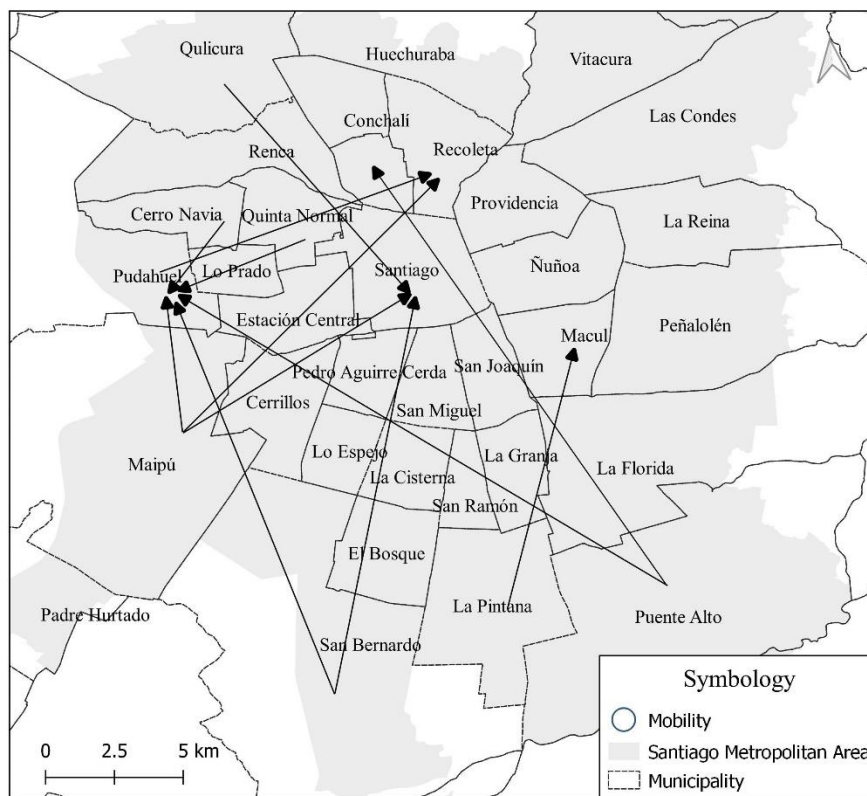
Figure 5. Trips of some participants from their municipality of origin to the UAPs.

Although few groups mentioned some of their members' locations, most UAPs recognised that they received other municipalities' participants. In this way, they saw that their activities' impact was not sustained locally but spread to the entire region. The main disadvantage of having a high-level scope was that those mobilised from afar and did not become group members. Ecobarrio Patrimonial Yungay recognised that these participants *"are not going to stay very stable, because there are people who*

114

come from San Bernardo and then you will not be able to contact them to continue working". It was mentioned that participants of events and workshops were less likely to become members and work in the allotments if they travelled long distances frequently. This type of mobility has two impacts. On the one side, this situation limited local networks' creation since participants chose to visit allotments outside their neighbourhoods or municipalities. On the other side, this situation could be a small step to forming a more extensive network where people became ambassadors who promote the groups between their friends and organisations within their own municipality. Usually, some members visit other allotments to form connections. However, because there was no access to the information of these participants, little is known about their motivation for travelling, their participation in other UAPs, the impact in their own municipalities, or the level and frequency of involvement in the visited UAPs. In this case, the groups became providers of knowledge rather than communities' creators since their scope of impact did not always reach the neighbours, who were a group of difficult access.

5.2.2   Social networks between UAPs

UAPs followed a social approach that included neighbours and nearby communities in their networks and other UAPs in the region. Most tried to not work in isolation but pursue connections based on common geographic locations or sustainable and social interests. UAPs networks were the main form of union between the groups and the space for transferring experiences, knowledge, and discourses. Specific members of the groups created connections between UAPs through spontaneous activities. In this subsection, social networks between UAPs are analysed to understand relationships and interactions formed between groups.

Group Structures

Members of the groups established networks between UAPs during events and meetings (CS12 and CS20). Since most of the groups' work was done inside the allotments, there were few instances where all the members could participate in activities without leaving their allotments unattended. For that reason, direct or indirect responsibility fell on the sole members who worked as ambassadors to the

other UAPs. Two common instances allowed connections between the members of different groups. The first were planned events where groups were invited to participate as presenters or guests in networking meetings, workshops, visits, and fairs. Huertablock mentioned that they toured different allotments for a time to make connections and learn how other groups worked their allotments. However, those connections were brief and rarely continued after the visits (CS2, CS18 and CS20). The second connection instance corresponded to members' unplanned visits to other allotments during events to learn or support their work. Usually, they were interested in a specific workshop thematic to learn or to meet the groups. The connections that usually lasted the longest were those between UAPs located in the same municipality since groups were more intentional in the permanence of the networks to support each other. Furthermore, this was part of the reciprocity that characterised UAPs. Their willingness to help other groups without expecting anything in return. Huerto Comunitario Las Campanas mentioned that they approached different UAPs to learn from them and get help before creating their allotment and received positive responses from many individuals and groups. A similar situation occurred with Huertas Vecinas Antu Newen, who received help at the beginning of their allotment, maintained contact with those who helped them and now support other groups in need. As few people worked in urban agriculture, most of them knew each other, had some exchanges or had mutual friends (CS11 and CS12), so some connections were easier to establish.

Group Networks

Some urban agriculture networks in Santiago brought the groups together, but they could not maintain long-term connections due to coordination and vision problems. One of the networks was called *ONG Red de Agricultura Urbana* (NGO Urban Agriculture Network*),* which was created in 2011 to share experience, work in allotments, and plan actions to promote urban agriculture. This network went through different activity moments, the most memorable during 2014 when they organised the first national meeting of urban agriculture in Santiago. In 2015, *Red de Huertas por la Inclusión* (Allotments for the Inclusion Network) emerged to focus on horticultural therapy. However, after several meetings, during the same year, they decided to include urban agriculture and change their name to *Red de Huertos Comunitarios* (Community Allotments Network). CS11 explained that the network was active in

2017 when, during increased activity, groups and representatives visited other allotments to share experiences, learn from the different managements and meet people who worked in the same activity. Most groups interviewed were aware of the networks and had participated in some meetings but also mentioned that it was no longer active. The network followed the same horizontal structure of the groups but suffered from the lack of participation, organisation and central members to promote participation.

Although most groups sent representatives to meetings, they could not always do so because they preferred spending their free time in their allotment rather than elsewhere. Groups recognised that they were not constructivist and did not know how to keep up with the visits' frequency. They had general goals for the meetings, but they did not have a clear objective for the network, and they were not progressing. After the network became inactive around 2017, three general meetings were organised by Huerto Comunitario Mapu Wangulen during 2018 and 2019, and Huerto Popular Observatorio al Sur organised one in 2019 on behalf of the *Red de Huertos Comunitarios.* Those meetings did not bring back the networks; instead, they connected UAPs interested in maintaining relationships and those who started recently. Despite the complications with these networks, CS17 considered that the organised meetings helped them understand that they were not alone working in urban agriculture, that they were not the only ones resisting the socioeconomic system, and they all had similar needs and problems. Networks with other UAPs reaffirmed them about their position in society by showing them that their work had a more significant impact. Despite the lack of a cohesive and robust connection between the groups, those who maintained links expressed the advantages of sharing and finding similar experiences. The difficulty of maintaining formal networks with groups working on the same area, despite the interest in the connections, shows inexperience and not enough understanding of the processes involved in the maintenance of relationships. This could be problematic for the allotments' individual connections with other actors since it reveals some weaknesses in establishing common goals, plans, and responsibilities.

Other urban agriculture networks mentioned by UAPs were *Red International de Huertos Educativos (*International Network of Educative Allotments*),* created in 2009,

which brings together school allotments at an international level; *Red de Campus Sustentables* (Sustainable Campus Network), which brings together national universities interested in pursuing sustainable campus; and *Red de Ecobarrios* (Network of Eco-Neighbourhoods), which includes urban projects developed by a community (neighbourhood) to create initiatives related to the environment to improve the biodiversity and quality of life. The first two networks were related to the allotments from educational institutions, making it difficult to connect with other groups since only a few were connected to universities or schools. Only Huerto San Francisco connected with both networks since it was a university allotment, funded and created by the university, so it had a more educational purpose than other university groups. The last network involved the neighbourhood as a whole and no single urban agriculture initiative, which limited the connections between the groups to only just from sustainable neighbourhood projects.

Group Interaction

UAPs preferred to maintain their connections locally and within their municipalities to create a community and reach out to the residents in their neighbourhoods. They considered that increasing the connection at the local level strengthened relationships between members and neighbours, emphasised cooperation, maximised their efforts and facilitated the logistical between UAPs from the same area. This was addressed by UAPs of two municipalities that prioritised their association with local groups, such was the case of Biohuerto, Huerta San Francisco and Ecobarrio Villa Santa Elena, located in Macul, and Ecobarrio Patrimonial Yungay and Huerto Libertad, located in Santiago, who often included Huerta Maqui and Museo de la Educación in their activities. Most of these relationships were based on collaborations, support, information, and the creation of other allotments around the municipality. These UAPs mentioned that distance was an essential factor in selecting local UAPs as their main connections of interests, as they needed to prioritise the use of their available time and could not waste time in connections that would not last. Therefore, working in their allotment became first on their priorities, followed by activities with UAPs from their municipality (CS2, CS13 and CS28), and then connections with allotments from other areas of the region.

The UAPs networks analysis (Figure 6) showed a low density of 9.2% ($\pm$ 0.3). Despite the intention to form instances of help and exchange of resources expressed by most groups, the actual connections between UAPs were less than the potential connections they could have established, and they are centred on a few main groups. This intention to form connections coincided with the results shown on the network, where UAPs with the higher number of connections were the ones that continuously sought activities to invite other UAPs and reached more links for their work, such are the cases of Huerto Urbano Yungay, Huerto Popular Observatorio al Sur, Huertablock and Fundación Mingako. The first two groups organised meetings in their allotment to discuss sustainability and urban agriculture; the third group organised visits to other allotments. In contrast, those groups in the network with no connections corresponded to groups that mentioned that they preferred to limit their interactions with UAPs or actors because the meetings reduced their already limited time to work in the allotment and because they were not interested in expanding their connections. Such are the cases of Huerto Comunitario Mapu Wangulen, Herbarium and Colectivo Sustento. Social connections are also challenging to maintain as they depend on the groups' willingness to maintain their relationships. Also, within the groups with the lower connections, there are those with the lower number of members, which could provide more evidence about the problems of UAPs with connecting with others when they lack members that could produce those connections. However, it was mentioned that in some cases, the groups with a low number of members were active and tried to form associations, such as the case of Fundación Mingako. Others had a higher amount but preferred to concentrate on their work, as in Huerto Comunitario Mapu Wangulen's case. This reflected the variability of interests and associations within the groups working in urban agriculture.
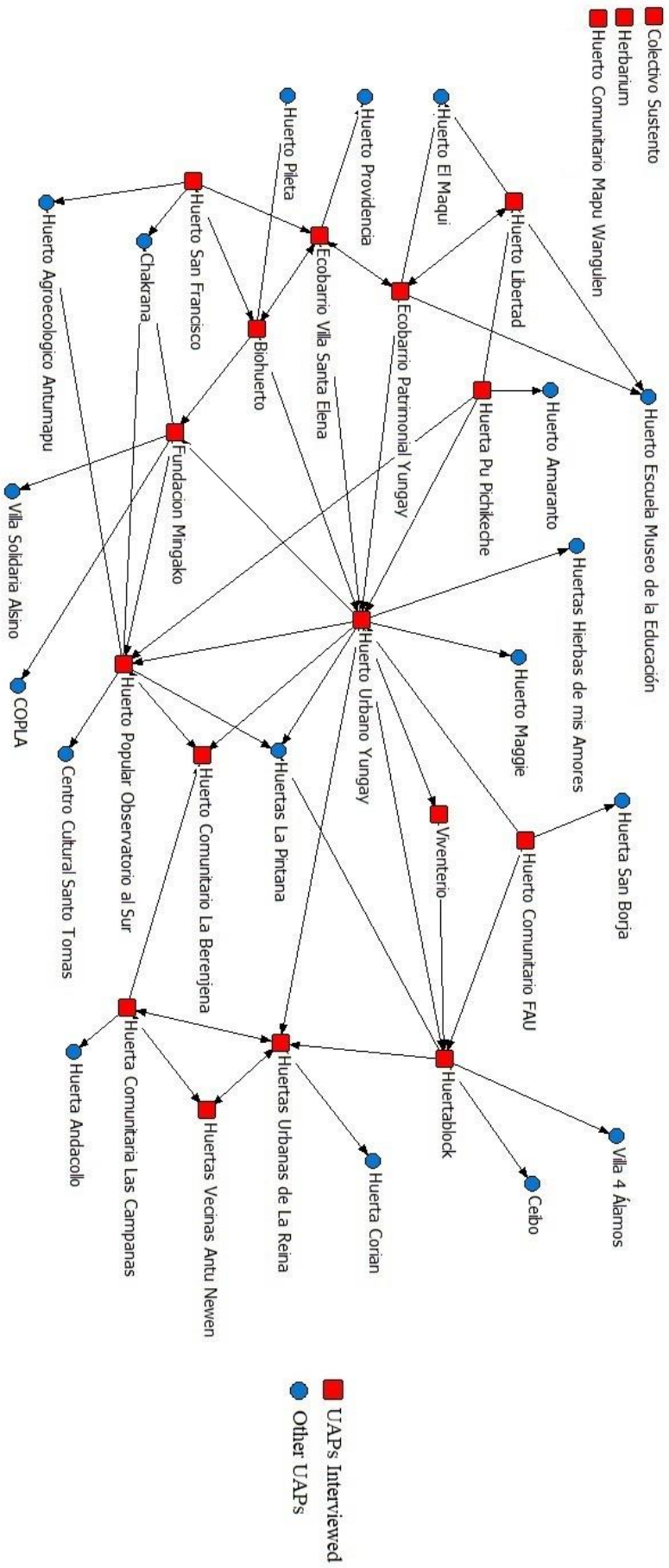
Figure 6. Networks formed between UAPs in Santiago.

120

5.2.3   Social networks outside UAPs

The interest of UAPs in the formation of governance networks involved the inclusion of actors from civil society, the state and the private sector that supported and shared their perspective of society and the environment. While some UAPs were selective in their connections and preferred to have little to no contact, others actively sought actors to connect, a situation that emphasised the differences between the groups. Indeed, this divided preference was reflected in the network (Figure 7) that showed a density of 7.6% ($\pm$ 0.3), resulting from a greater number of actors available for connections but with fewer UAPs interested in searching for those links. The network formed 192 ties from 132 nodes.

The degree of centrality of the network, with 24.2%, reflects the other part of UAPs, those interested in forming links with many different actors and who concentrated most of the connections. One of them, Fundación Mingako, a community organisation integrated by neighbours of the Municipality of San Bernardo that promotes an ideal sustainable life in the community through education, achieved 24.4% of out-centralisation, once again among the most connected groups due to their approach to intentionally integrating civil society, the private sector and the state in their activities. It was followed by Biohuerto UC and Huerto San Francisco, UAPs located in the same university. However, the first one was formed by the students and the second by the university, and both achieved 13.7% of centralisation. The other UAP that reached a higher level of centrality was Ecobarrio Patrimonial Yungay, a neighbourhood council allotment to promote environmental awareness with 13.0%. All these groups showed a willingness to connect with different actors by providing or requesting different economic, technical, and educational resources.

Figure 7. Networks between UAP and different actors in Santiago.

Research Units
Other UAPs
Social Groups
Sustainable
Educational Centres
State
Private Sector
Civil Society
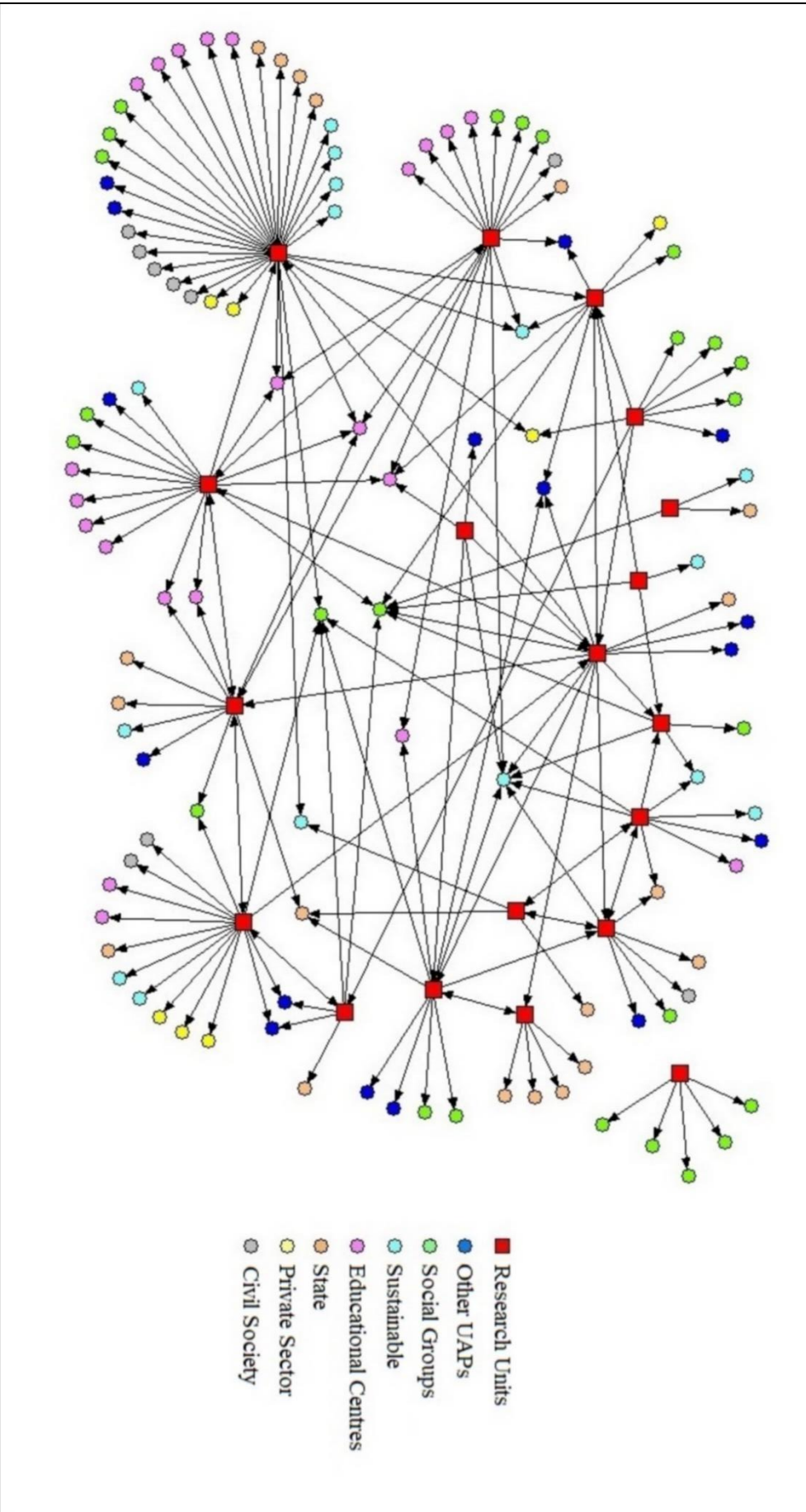
Like the network between UAPs, groups without ties were once again among the least connected, following their preference for working mainly in their allotment and with particular groups aligned with their interests. Herbarium, a private organisation in Peñalolén that promoted an environmentally friendly lifestyle through different activities, was among the least connected groups and was not connected to the main network. Because they were concerned with many activities related to allotments and health, but urban agriculture was not the main one, they linked with organisations that helped them in their general work and were not interested in connecting with UAPs. Most of the other groups were interested in linking with a wide range of actors to work in a synergy of giving, receiving and disseminating information and assistance.

UAPs worked with specific actors who shared similar interests that reflected the groups' methods to create community. UAPs were categorised into six typologies based on the main actors the groups associated with the SNA: Social, Sustainable, Educational, Civil Society, State and Mixed. The typology offers a summary of the different areas that the groups are approaching. Although they all work in urban agriculture, their connections reflected how they produce an additional impact on the community. Table 3 shows that although some preferred a wide range of actors (Fundación Mingako) without a specific type that stood out, others preferred to include exclusively one type of actor, be it social actors (Herbarium), educational groups (Biohuerto UC) or the government (Viventerio). Some of the results reflected the allotments' characteristics, such as Biohuerto UC, created by students from a university and maintained those educational connections as its core, and Viventerio, created by the Municipality of Recoleta and was mainly connected with the state institutions.

Table 3. Typology of UAPs

Typology	Definition	UAPs
Social	Groups working with actors with a social and cultural orientation.	Herbarium Huertablock Huerto Libertad Huerto Comunitario Pu Pichikeche Huerto Popular Observatorio al Sur
Sustainable	Groups working with actors with a sustainable and environmental orientation	Huerto Urbano Yungay Huerto Comunitaria Las Campanas
Educational	Groups associated with universities and educational centres	Biohuerto UC Fundación Mingako Huerto San Francisco
Civil Society	Groups working with local groups, clubs and local business	Ecobarrio Patrimonial Yungay
State	Groups associated with municipality departments, municipalities, ministries, and health centres	Viventerio Huertas Urbanas de La Reina Huertas Vecinas Antu Newen
Mixed	Groups that work with a broad range of actors and do not have a specific type of interest	Colectivo Sustento Huerto Comunitario FAU Ecobarrio Villa Santa Elena Huerto Comunitario La Berenjena Huerto Comunitario Mapu Wangulen

In some cases, the typology contradicted the personal orientation of the groups. Such was Huertas Vecinas Antu Newen, a community organisation created in a park to impact the neighbourhood, who considered themselves more community and social but were more linked to actors from the state because they received assistance and support from the municipality. These typologies evidenced the different types of actors not related to the allotment that the groups included in their networks, reflecting the concern of UAPs for environmental and social issues unrelated to allotment work. This interest enriched their networks by including various perspectives in which urban agriculture could help (more about the environmental and social interest will be analysed more in the next chapter). Most groups worked with social and environmental organisations, including NGOs concerned about the territory and forests, organisations promoting ecological education and sustainability, and local networks. Their alliance involved exchanging knowledge with the participation of groups in workshops as teachers and participants, support in projects as joint organisations, and resources with the offer of their spaces for gatherings (CS9, CS10 and CS29).

The relation between UAPs and Community actors

The preference of UAPs for connections with local community actors reinforced their objective of producing impact at the neighbourhood level through networks. One of the most beneficial connections mentioned by the groups was the one formed with the Neighbourhood Council. This relationship's relevance referred to their shared community organisation in the territory and their representation of the neighbours' interests. A Neighbourhood Council is a community organisation of a territorial nature representative of the people who reside in the same neighbourhood unit. Its purpose is to promote community development, defend their interests, ensure their rights, and collaborate with the state's authorities and municipalities[15]. This relationship gave UAPs extra support and validation in the territory before the authorities and neighbours and made the Council an ally by supporting their activities. Sometimes, this support was reflected in permission to use the Neighbourhood Council centres during workshops (Ecobarrio Patrimonial Yungay and Huerta Comunitaria Las Campanas), providing publicity for events and workshops, and assisting with technical support for activities or connecting them with the municipality (Huerto Libertad, Fundación Mingako and Huertablock).

Although the general closeness to the Council of some UAPs, they were perceived as opponents in some cases. The most prominent case was Huerto Comunitario Pu Pichikeche, which mentioned that they faced several problems with the Neighbourhood Council president, who repeatedly denounced them to the municipality and even requested the removal of the allotment due to disagreements. The group perceived that the problems lay in the president's right-wing political orientation, which was opposite to the more left-wing orientation associated with UAPs. Despite the problems, scholars considered that the association between actors was beneficial for the Neighbourhood Council since they faced a lack of representation because the new generations were not interested in these more traditional organisations, and UAPs usually summoned as many people with their activities as the Councils with their meetings (CS19). These associations helped both actors by

---

[15] Art.2, Decreto 58, 2019

validating the activities of the UAPs and showing the young people the type of work carried out by these more traditional organisations.

UAPs had a solid sustainable orientation due to their awareness of the problems and benefits of action in nature and the environment. They formed connections with different sustainable groups working in Santiago (Figure 8). The most mentioned association was formed with Germina La Florida, an organisation whose objective was to improve the inhabitants' quality of life through ecological education, the control of the bad practices, and the recovery of spaces for urban agriculture. Other groups mentioned were Panul, Huellas Verdes, Platabanda, Pasarelas de San Borja, Bosque Chuchunko and Eco Feria, working in guerrilla allotments and forest protection, the keeping of traditional seeds, and sustainable education. These associations were usually formed to support the work and activities of the sustainable groups or exchange knowledge through the associations by giving workshops or receiving talks at UAPs.
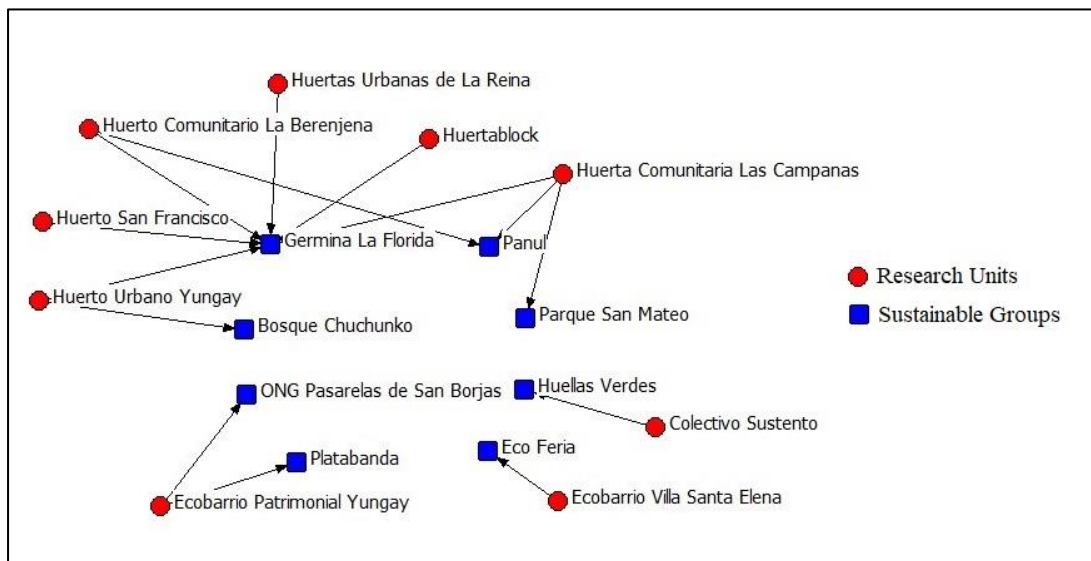
Figure 8. UAPs connections with sustainable groups.

The social and environmental orientation of UAPs allowed them to be part of networks that were not only focused on urban agriculture. As a result of their interest in urban problems, 11 UAPs participated in different networks that coincided with the group interests (Figure 9). The most common association was established with *Red de Huertos Comunitarios*,[16] the only network representing urban agriculture in Santiago.

---

[16] Due to the name changes undergone by the network grouping urban agriculture in Santiago during the past years, all UAPs that were part of *Red de Huertas por la Inclusión* and *ONG Red de Agricultura Urbana* were located under *Red de Huertos Comunitarios* for this analysis.

Despite their inactive state, some groups organised meeting under the network's name and persisted in their continuity. A less common association was established with *Red de Ecobarrios*, which united urban projects in specific territories to improve urban life and solve collective social needs. It was a restrictive network that only allowed neighbourhood associations, which corresponded to Ecobarrio Patrimonial Yungay and Ecobarrio Villa Santa Elena only. The other three networks had a social and environmental orientation that was not directly related to urban agriculture, reflecting the plurality of concerns of UAPs. *Red de Defensa de la Precordillera* was a network that included actors interested in protecting the Panul forest located in the pre-mountain range of Municipality La Florida and Municipality of Santiago. *Red de Campus Sustentables* was a network that included different national universities interested in creating sustainable campuses. And *Red de Construcción Popular de Independencia* was a network whose main aim was to unify territorial organisations in the Municipality of Independencia.
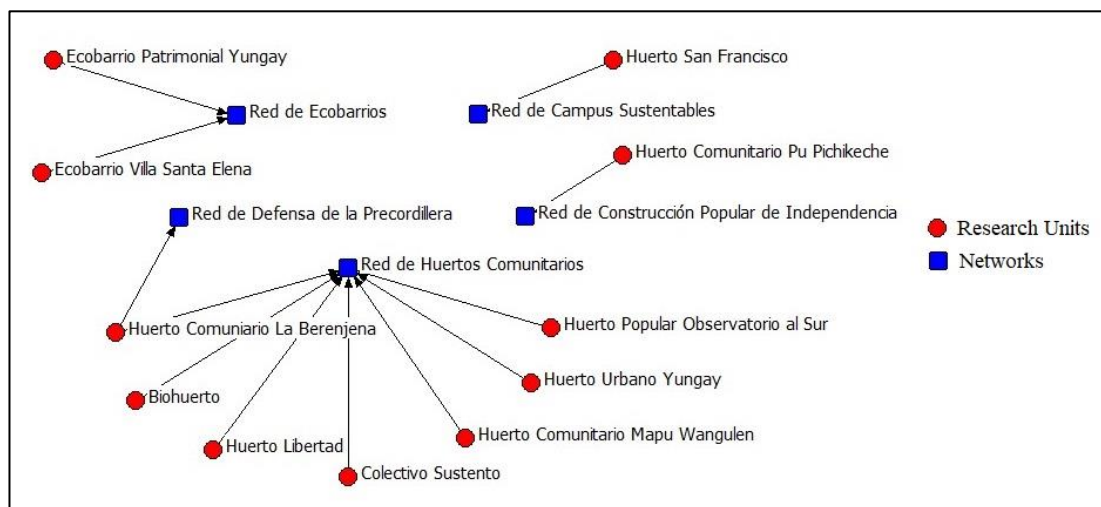
Figure 9. UAPs organisations with social and environmental Networks.

The last group that UAPs connected with shows their interest in educational topics. Different groups connected with universities accepted interns or had students as volunteers (Figure 10). At least six UAPs received interns from Instituto del Medio Ambiente, Universidad Andrés Bello, Pontificia Universidad Católica and DUOC UC, that worked in the allotments as part of professional practices (Fundación Mingako, Huerto Popular Observatorio al Sur, Herbarium, Huertablock, Huerto San Francisco UC and Ecobarrio Villa Santa Elena). The students contributed with their scientific knowledge, but they also learnt about more traditional allotment management

practices since some of the members noted that the students had good theoretical ideas but little experience working with vegetables. However, the connections were also formed by students who worked as volunteers in the allotments located inside the universities (Pontificia Universidad Católica and Universidad de Chile) or by research developed by universities with the groups.
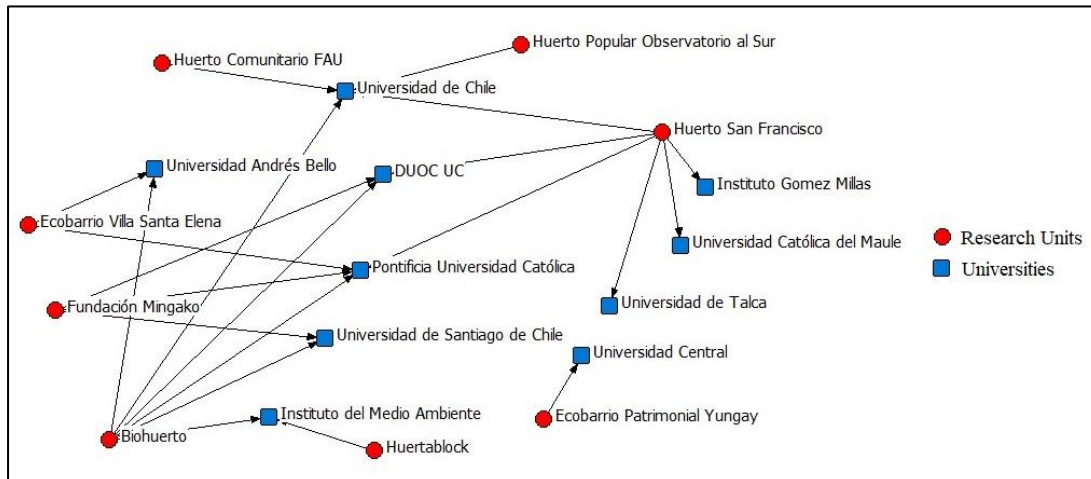
Figure 10. UAPs connections with universities.

The relation between UAPs and Municipality

The connections formed between UAPs and the municipality were usually based on the interest of the groups. As a result, the networks with this actor were less numerous, and the relationships weaker than those formed with the community actors. Some UAPs established connections with the municipalities to obtain financial or material support with successful results. Indeed, groups that believed in a transversal alliance of actors (Fundación Mingako) or that emerged from state organisations (Ecobarrio Patrimonial Yungay, Ecobarrio Villa Santa Elena, Viventerio, Huertas Urbanas La Reina) had a better relationship and tried to maintain a constant connection. Due to the different needs of UAPs, their association with the state actors included departments and organisms at different levels (Figure 11). Most networks were formed with municipality departments and local health centres since they were the first level in the state to reach for information and assistance easily. In this case, the network included specific actors and departments within the municipality. Many UAPs felt that their connection was not with the municipality as an institution but with specific people and departments from the municipality in a more personal relationship. The

highest level, the connections with Ministries, were formed by associations or projects that UAPs carried out. Groups had difficulties with the hierarchical and top-down structure of the state, which limited the formation of a permanent governance network, and instead formed sporadic interactions with low participation and trust.
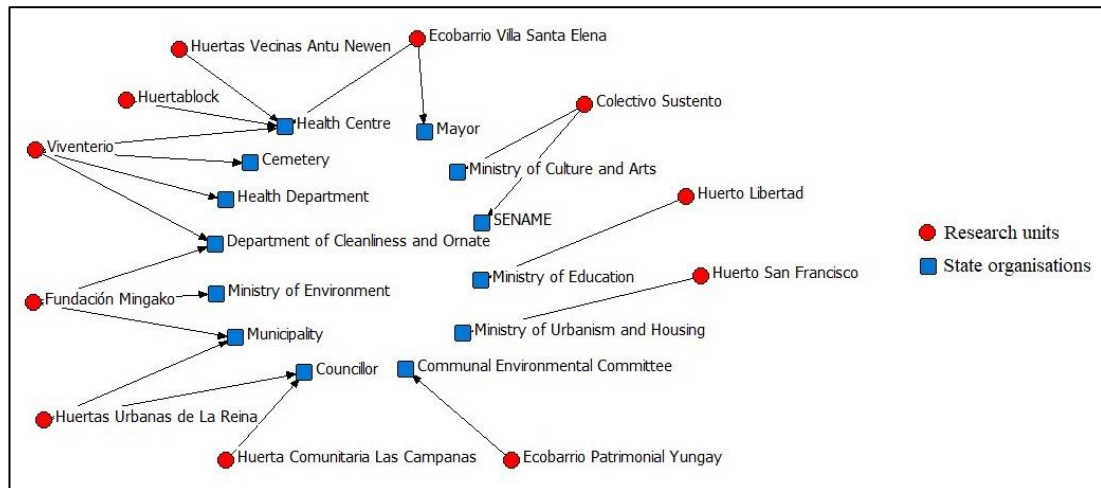
Figure 11. UAPs connections with state organisations.

UAPs formed by Neighbourhood Council usually maintained connections with the municipalities. Ecobarrio Villa Santa Elena mentioned that they received visits from the mayor, who offered to help continue the allotment. Ecobarrio Patrimonial Yungay explained that their connection was weak due to the political orientation of the mayor. However, they continued to pursue partnerships because they believed "*that as a community, we have to relate to the municipality, regardless of who is on duty*". Huerto Popular Observatorio al Sur received compost from the DIGA of Municipality of La Pintana (Directorate of Environmental Management, *Dirección de Gestión Ambiental*). Huertablock received workshops from the Department of Environmental of the Municipality of Pudahuel but in a personal relationship rather than a professional one. Similarly, Fundación Mingako mentioned their relationship was only with the Director of a department within the municipality since they had not provided any support, even when they tried to establish the connections. For a group member, the problem "*has to do with our critical perspective on how to live in the city and particularly the sustainable paradigm*" because they proposed a community and sustainability model that the mayor did not share. Despite their continued invitations to the mayor to attend their activities and visit the space, this never happened, which

they found surprising since the Minister for Environment attended an activity they organised.

The connection with the municipalities was more difficult for other groups since they found that municipalities did not have funds to support UAPs or were not interested in fomenting the connections. In some cases, the relations between the municipality and UAPs were fractured, and the groups were not interested in pursuing connections. Such was the case of CS1, who considered that "*the municipality is an enemy at this moment*" due to problems with the allotment's permanence and preferred to avoid any relationship. This conflictual relationship was a reactionary response to a broken dynamic between the actors. Most of the conflicts occurred because some groups used unauthorised abandoned public areas for their allotments, causing problems with the municipalities who, despite lacking guidelines for urban agriculture, intended to destroy the allotments to use the area for other purposes. Such were the cases of Huerto Comunitario La Berenjena. Their allotments were going to be removed because the municipality wanted to make a park in the same area, but the plan was stopped after the neighbours' support for the permanence of the allotment. Huerto Comunitario Pu Pichikeche was forced to move to another parking area since the municipality planned to remodel the sector. Lastly, Huerto Comunitario Mapu Wangulen, whose allotment was destroyed by the municipality to make room for the health centre's parking lot. In most of these situations, meetings with the municipality were minimal or nil. The first mentioned UAP participated in a long negotiation with the municipality and neighbours where it was decided by the community that the allotment would remain. The other two groups received notifications to leave the space, which they refused, and just noticed the conversations' outcome when a backhoe appeared to remove the plants and trees. At this time, the community's connection was evident since the neighbours advocated to stop the destruction of the allotments and later protested when the allotments were removed. After the neighbours' protest, the group was allowed to use vacant space at a close distance to continue their activities. As a result of these problems, the UAP rejected further communications with the municipalities since the trust was lost. They considered that any help provided by the municipality could have undesired consequences that they were unwilling to assume.

Some UAPs (Fundación Mingako, Huertablock, Ecobarrio Villa Santa Elena and Ecobarrio Patrimonial Yungay) perceived one of the main problems establishing connections with the municipalities was the political orientation of the mayor. UAPs were usually associated with the left political party since their work, discourses and ideas were considered more revolutionary and against the system, even though they did not promote any political side. Fundación Mingako explained that this disconnection occurred because some mayors cared more about the political party than the group's environmental activities. Indeed, Ecobarrio Villa Santa Elena noted that just after the election of a left-wing mayor, they could reach the municipality easily and receive visits of the mayor in their allotment. This never happened during the administration of the previous right-wing mayor. Even the person who worked in the Department of Environment from a municipality mentioned that the support and interest *"depend on the current government's tendencies if they are going to start supporting these projects, to endorse these issues, some are more concerned than others"* (S4). Huerto Comunitario Pu Pichikeche considered that the problem was more general since there was no difference in the political parties since mayors were not interested in sustainability work. Alternatively, they showed excessive interest for political reasons, and UAPs felt that in those cases, there was a risk for the allotment to be adopted by the system and treated as products for marketing purposes and not as a community project with social ideas. For a scholar, the problem arises when "*there is a group of neighbours that are becoming more visible and is acquiring more political support than the same municipality, then, there is like that kind of tensions that, in the end, does not help much*" (E3). Most UAPs felt this problematic tension and opted to pursue the connections if those resulted positively or avoided them to minimise conflicts. This shows the groups' different governance interactions, with some being selective and doing what they felt the state actors did with them, ignoring them and approaching them when they need help.

The municipalities also recognised their limited connection with UAPs in Santiago. They were aware of the social benefits of urban agriculture in the community, and they helped groups with their limited resources. However, they reduced their help due to unsuccessful experiences with allotments in schools that they helped create but die in the summer due to lack of maintenance. However, they also had time incompatibility with community allotments they formed that were used on weekends, outside the

municipality's work hours, and therefore could not assist in activities or training. The municipalities explained that the easiest and more profitable help they provided was with information and advice. Macul and Santiago's municipalities provided general workshops to train people within their municipalities to start their allotments or specific workshops for UAPs that required a more specific education. Santiago's municipality even had an Educative Centre, where residents could learn more about medicinal plants and participate in workshops. Another material support provided by some municipalities that did not involve economic contribution was vermiculture or compost to organised neighbours, institutions, or projects. Due to the lack of financing in the Departments of Environment (See subsection 7.2.2), most municipalities opted for the provision of assistance that did not imply a cost but complied with the community's request, and therefore, the preference of workshops and training.

For a scholar, the problems sometimes were the responsibility of each actor within their network. They explained that the relationships were often "*like a fight: it is the municipality or the neighbours. If the municipality is there, the neighbours are not there, if the neighbours are there, the municipality is not, because it belongs to the neighbours, but if the municipality is there, it comes and expels the neighbours*" (E1). The interviewee mentioned that it was expected that residents asked the municipalities to clean neglected spaces within their neighbourhoods, and the municipalities were not interested. However, when the neighbours transformed and used spaces, the municipalities saw the potential and an opportunity to recover the area, which usually ended in the destruction of allotments and the neighbours' expulsion. UAPs considered that they were doing part of the municipality's job by cleaning spaces and using them for greening activities. Therefore, the municipality was no longer responsible since they did not participate in the transformation.

In contrast, the municipalities commented that in many cases, the problem was the lack of responsibility of the neighbours to take ownership of the spaces. S2 mentioned that "*sometimes we have problems because it is supposed that when you plant trees or some species they need maintenance, and we sometimes plant outside the neighbours' houses, but the neighbour has to have a commitment to take care of the space and many neighbours do not have the commitment*". The responsibility for the spaces and the green activities that were implemented was unclear. The municipalities

complained that residents did not take care of the public spaces, lacked commitment to maintaining the areas and were not responsible for maintaining vegetation. However, when UAPs wanted to maintain space, the municipality opposed it since they were not allowed. This confused the responsibility for each action. E3 mentioned that when asking neighbours about the maintenance of green areas, they asked them, "w*hose responsibility is this? The municipality they tell me. Whose responsibility it is? of the state. But it is never their responsibility*". This type of unclear responsibility generated complications among the actors and conflicts due to the actors' contradictions.

The relation between UAPs and Private Sector

Some UAPs involved the private sector in their networks for the financial support they could provide to allotments. Their relationships were the least developed, with less friction than those of the state, but they still presented a problem for the groups. Although some groups worked at specific times with large companies, most of the connections mentioned were with various local businesses in the neighbourhood. A small business was more accepted and preferred when establishing connections and obtaining funding since they were perceived as equals regarding scope and capabilities, sharing the same disadvantages the groups, needing the local community and sharing the same territory. Connections with other actors from the local community ranged from one-off help to ongoing support. Most of them were established with neighbourhood businesses that provided publicity of events, tools for working in the allotments, financial help for maintaining their work, companionship and connection. Huerto Comunitario Pu Pichikeche maintained a connection with a local newspaper which they supported in their fundraising activities. Huerto Libertad worked with some local restaurants that provided them with organics waste to compost, lent them tools to use in the allotments, and supported them in their activities. Huerto Popular Observatorio al Sur worked closely with a sports club receiving support and space to store their tools within the barn that belonged to the club. Ecobarrio Patrimonial Yungay received technical support and materials from two big companies in specific activities and connected with Radio Cooperativa, a restaurant, and a printing store that helped them promote their events. Fundación Mingako also connected with local businesses to request financing and assistance through a

methodology they developed to find specific areas and potential donors. They had no formal relationships with large companies other than the company that rented them the land they currently use. However, they received help from local businesses in the area that donates tools and equipment.

In some cases, the networks formed with local actors did not translate into a physical exchange of resources but in more subjective and invisible support. The fact that the networks were already expanding outside the allotments and that UAPs knew that they could access the local actors in times of need was already important for the groups due to the work and impact of the networks. UAPs and local businesses shared a similar idea of impacting the local community and making them part of the groups' governance due to their shared characteristics despite the differences in work areas. As one interviewee mentioned, "*private actors that today are promoting sustainability and green areas are small organisations*". UAPs were clear about their preference for local businesses due to their strong ideological position regarding neoliberalism and sustainability because they saw in those actors cooperation and benefits for the allotment and the neighbourhoods. However, they opened the door to large, sustainable and environmentally friendly companies that truly acted following their values. They were so concerned with upholding their ideals that one group mentioned that they rejected collaboration proposals from some large companies because their discourses did not align with their values and beliefs. As one member said: "*what we are looking for is that if there is a relationship with companies that are not so utilitarian, but something more reciprocal, truly a joint effort*". They were very cautious since many groups did not perceive that the private sector approached them intending to help but rather promote themselves as socially conscious companies that support 'green' causes.

The relation between UAPs and actors regarding funding

UAPs connect with civil society, the state and the private sector to obtain funding for the allotment's work. Of the 19 groups included in this research, 17 used self-financing activities to fund their allotments. Of those, eight were self-funded and depended solely on the money donated by the members or on activities to raise funding (Huerto Libertad, Colectivo Sustento, Huerta Comunitaria Las Campanas, Herbarium, Huerto

La Berenjena, Mapu Wengulen Huerto Comunitario, Huertablock, Huerto Comunitario Pu Pichikeche). When they needed to raise a small amount of money, they sold food and items at the farmer markets. When they needed more quantity, they organised solidary dinners, social events (*peñas*), raffles and lunches, using the opportunity to connect with the neighbours and included them in their activities (Huerto Comunitario Pu Pichikeche, Mapu Wengulen Huerto Comunitario, Huerto La Berenjena, Huertablock, Huerta Comunitaria Las Campanas). These self-financing activities depended heavily on the community's solidarity and participation, producing better results in those UAPs more organised and connected than those isolated and disconnected. Raising money was the most accepted among the groups since it aligned more with society's perception. They preferred to remain outside the economic system and provide an alternative economy based on solidarity, community and participation. From a governance perspective, this type of activity helped the groups to generate two outcomes. They organised events with their members and participants aligned with their ideas of society, cooperation and inclusion to generate income for the garden. Furthermore, they involved the neighbours in an event, making them part of the allotment problem, strengthening the cooperation between the neighbourhood and including them in their network of solidarity and trust since they feel part of the solution.

Some groups were open to apply for public and private funds. Fundación Mingako received three state funds from "*Quiero Mi Barrio"* to improve the neighbours' quality. Ecobarrio Patrimonial Yungay mentioned that their large facilities (irrigation system and greenhouse) came from public funds. However, they mentioned the difficulty of obtaining funds and winning projects, so they did not depend on external funding. Ecobarrio Villa Santa Elena received funds from Nestle and the Neighbourhood Council through projects that they have won. In the university allotments, Biohuerto UC received funding from the university, Huerto Popular Observatorio al Sur received from their faculty, and Huerto Comunitario FAU received from the Students Affair Department. All groups are aware of available public funds such as Competitive Funds, Public funds, Municipal Funds or Environmental Protection Fund. They are willing to use them since they consider that the money belongs to everyone because they are state funds. However, they expressed that the most decisive limitation was not being granted a fund but the report of the expenses they needed to provide during

the following years. Due to their work type and the many externalities and complications that could happen during their work, they considered that declaring how the money would be used before applying was complicated since their expenses varied during the year. Huerto San Francisco mentioned that "s*tate funds are a complication because they give me a fund for a year and you have to show results, there you have a problem*" since the activities they applied for could not work or they could need to buy machines they did not consider, and that was not included in the bases. They perceived this obligation to declare as a form of control over their actions and activities. Huertablock recognised that it would be easier to plan with a large amount of money donated by a company than with a small amount raised by their work, but they preferred not to compromise their beliefs for money. Huerto Popular Observatorio al Sur mentioned that they always search and discuss funding sources in an assembly before approaching any actor because they tried to be consistent with their discourses and with what and to whom they criticise.

Fundación Mingako decided to obtain funding from the different social actors following a solidary economy approach, where they achieve their goals with the collaboration of actors: "W*e are exploring another wing that is the solidarity economy, the collaborative economy, so we show that there is not only one economy that this neoliberal system imposes on us, that is, there are others and can be explored, and you can do things as we did"*. This approach sought the integration of all the actors to collaborate disinterestedly. An example of this was the donation of three trucks full of sand from local sand workers to construct the main centre building just because they wanted to be part of the project and help. Their work emphasised reciprocity in the actions, giving experience, materials and funding without expecting a reward or payment in return. However, Fundación Mingako considered that *"a big limitation is the financing, because the initiatives that exist start with a strong force, but then they find themselves faced with the clash of realities, that finally, you have to subsist from something"*. Most groups considered that funding was the most significant limitation since it was challenging to cover the allotments' basic expenses.

5.3 Discourses in urban agriculture

In this section, I analyse the relevant extracts from the interviews that support the presence of social connections as a discourse produced in urban agriculture within a neoliberal system. I will address the community allotments' most relevant discourses and story-lines that refer to social concern, community, empowerment, and resistance.

5.3.1   Social concern

Urban agriculture is meant for social connections, not food production. That was a story-line that most UAPs agreed on during the interviews. For them, the allotments' real objective was to increase the participation of neighbours and create community, detaching the ideas of individualism implanted by neoliberalism. For them, the problem was not the lack of food but the lack of social connections. Indeed, C12 explained that "*it is not our case in Chile that we have to produce food for necessity"* because the work in urban agriculture:

> *does not have to do with a need for food as it happened in Uruguay before or as it happened in Cuba, it has to do with something else [...] I believe it has to do with a social protest around the system.*

Indeed, UAPs showed little interest in growing vegetables for consumption for two reasons: low productions of vegetables and small plots to develop their allotments. Huertas Vecinas Antu Newen explained that they do not expect to produce enough vegetables in the allotments to feed themselves, "*in fact, we are the ones who have fed less from here because we always give them away*". Most UAPs mentioned their preference for donating the vegetables to neighbours, visitors, homeless shelters, schools or used them to prepare food for the workers to contribute to the community. They mentioned that the low production they obtained was due to the small size of the allotments used. Huertablock explained that the 500m^2 space they use for their allotment could not keep all the members fed since not all the space was used, and they were still testing different planting techniques, so not all the plants survived or grew vegetables. For CS28, the size limitation was an advantage for their idea of working the land in a respectful and sustainable form because:

to consider an allotment that allows us to have such a large number of surpluses, it would be like generating more cultivation in this space, and it makes no sense either because it is not the idea of what we are considering in sustainability.

For UAPs, the limited size of plots and the low production of vegetables meant that urban agriculture was not a solution for food demands. Indeed, Fundación Mingako indicated that *"it is difficult also to see the allotment as a solution for food citizenship because there is little you can get out of an allotment to live for a whole month"*. However, E6 explained that that "*from the point of view of sovereignty, food and autonomy, having an urban allotment that does not produce for us is a failure*" and considered that UAPs without productive results were just experiments. Other groups did not share this opinion, despite that for Huertablock "*the allotments do not contribute to food sovereignty yet*" S4 agreed that urban agriculture *"is more than producing lettuces; it is reconnecting us with the land"*.

The origin of urban agriculture in Santiago was associated with social concern and interest in impacting the community. One of the main reasons for the emergence was referred to as social crises. CS12 explained that the boom was:

> *the students' protests of 2011[17] and if you asked me when the university urban allotments started strongly, it was 2011, the first university occupations were in 2011, which are the same kids who started the revolution in 2006, which are the high school students that became university students.*

During a time of intense criticism of the state and the economic system, the students *"wanted to talk about things, and they started talking about allotments, they started talking about food, and they started to open several allotments"* (CS12). It was in this environment of students in search of social change that UAPs emerged and were transformed into Huerto Popular Observatorio al Sur (Universidad de Chile), Huerto Comunitario FAU (Pontificia Universidad Católica) and Huerto Comunitario Pu Pichikeche. The first group worked with social organisations in the neighbourhoods surrounding the university, but during the students' movement, they decided to make

---

[17] In April 2006 high school students started the largest wave of protest in Chile since the country's return to democracy in 1990. The protests reached their peak in on 30 May 2006 when nearly one million students adhered to strikes and marches throughout the country to demand specific and general changes in the education system. In 2011 the student protests re-emerged with even more force. The students demanded free, public, and quality education and to end the profits in higher education. The protest involved marches, strikes and the occupations of universities, with the Universidad de Chile's Casa Central, the most emblematic university building in Chile, occupied by students for nearly seven months. Cumming, P. (2015). Democracy and Student Discontent: Chilean Student Protest in the Post-Pinochet Era. *Journal of Politics in Latin America,* 7(3), pp.49-84. doi:10.1177/1866802X1500700302.

a more permanent impact by creating an allotment. The second group started during a university occupation that lasted a couple of months, where they cleaned up a neglected space and used it for their allotment. The third was formed during the student movement because of their interest in working in territorial assemblies. Some other UAPs had an interest in causing a social impact in the community with their activities. Indeed, Huerto Comunitario Mapu Wangulen, Huertablock, Colectivo Sustento and Huerto Libertad started after participating in workshops where they wanted to transfer their interest to more physical activity selected urban agriculture for its social potential. Other UAPs, such as Huertas Vecinas Antu Newen, Huerto Comunitario La Berenjena, Ecobarrio Patrimonial Yungay and Huerta San Francisco started due to their need to create spaces to motivate people to work on environmental and social topics and maintain the area in order. In some other cases, the motivation of UAPs was combined with their need to reclaim abandoned public areas for the community to use. They realised the lack of maintenance in public spaces as an opportunity to improve the neighbourhoods' security and support the community, which were the motivation of Huerto Comunitario La Berenjena, Fundación Mingako, Herbarium, Huertablock and Huerta Comunitaria Las Campanas.

UAPs observed that their groups' social orientation impacted the relationships formed between residents with the allotment, between members and participants of the groups, and between UAPs with the community. Most of the internal impacts concerned the interactions between people with the allotments. UAPs perceived allotments as places for people to calm down and reflect on their lives, forming a personal relationship with the allotment, which differed from person to person since everyone seeks different objectives. Huerto Comunitario Mapu Wangulen observed that *"people connect strongly with the soil where everything is more sensory. Sometimes people come to discharge in a sense or come to create, and it is a very free space, so people sometimes connect with themselves in some activities"*. A member recognised that they participate because *"I need a space like this for my mental health"* (CS17), recognising the allotment's therapeutic benefits. Some people preferred to use the allotments as a relaxing place to rest and enjoy nature (Herbarium, Huertas Vecinas Antu Newen, Huerto Comunitario Mapu Wangulen and Huertablock). Indeed, Huertablock felt privileged to offer a space of reflection where people could enter not to work in the allotment but to sit, contemplate nature, relax, and rest. Others preferred to release all

their problems by working with their hands on the ground (CS17). Huertas Urbanas de La Reina remembered people arriving agitated, wanting everything right now. However, they realised that they could not set the allotment's pace because everything has a time, and then they began to slow down and calmed down. Huerta Comunitaria Las Campanas perceived it as a way of reconnecting people with their neighbours and with the land because people "*are all in their world, work, work, work, but nobody remembers where things come from, the effort it costs*". All groups agreed on the importance of allotments to provide a space of relief for people, for Huerta Urbana Yungay *"to have a space like this […] it is necessary for everyone"*.

5.3.2   Community

The work inside UAPs and the interactions formed during the work produced different moments of connection. Simple exchanges where members asked for tools usually initiated conversations, but it was not until the breaks and mealtimes when the relationships evolved into camaraderie, and strong connections were formed around the allotments and their work during the day (CS17). For S2, "*the simple fact of doing maintenance, getting together,* [and] *talking"* changed people's perceptions and connections. Recognising this dynamic, some UAPs organised *mingas*[18], which are activities where "*many people get together here and come to work in the allotment, and then we have a community lunch with contributions that the same people bring, as a gift to the same people who come and work*" (CS17). Impacts were also produced between participants and members of UAPs. E6 explained that teaching people about plants and environmental topics changed their perception of the allotments and their lives. As a result, their:

> *relationships begin to change; they realise that there are things that are much work, that you cannot do alone, you need a partner and that you have a relationship with your harmonic partner to do things well and together because you know what needs to be done* (E6).

---

[18] *Minga* means requesting help while promising something in return. In Chiloe, in the south of Chile, it is applied to the tradition of moving whole houses to other areas of the island with the help of the community. As a show of gratitude, the homeowners provide music and food to the community that helped during the relocation and promise to help them in return if someone needs to haul a house.

Huertas Urbanas de La Reina mentioned that people participated in the allotments:

> *for socialising, more than anything, rather than to produce, they are interested in knowing other people, and, in fact, that happens, there are some that come, and of the two hours they are here, they spend an hour and a half talking and half an hour in the allotment.*

Allotments encouraged interactions and transformed strangers into acquittances and friends. As the E6 explained, the unknown participants who worked alongside after time became known by name, turned on 'John Smith', who worked in the allotment, took peaches without asking, who did not work for a week or who lent them a tool. For CS1, these interactions in the allotment "*force us to work with the difference*", to adapt to different people and to work with them for a common objective, and where communication was key, since "*communication is needed for anything, even for conflicts*" that could arise in the relationships of participants and members (E5). However, allotments also look to produce external impacts on the community. Huertablock observed how their neighbours' perceptions went from rejection to acceptance and admiration over time for their work. At first, they received constant criticism about the allotment and its activities. However, over time, the neighbours started to get involved, participated in events, approached the allotment to relax and rest, showing their approval. They noticed this change clearly when they collected the signatures of neighbours showing their approval for a project they wanted to implement in the allotment and not only received no rejections but also received congratulations for their work and to them "*that was great because it reaffirmed that we are doing a good job*".

 Workshops were another activity used to create deep connections between UAPs members. Huerto Comunitario Mapu Wangulen recalled the closeness formed in a couple of workshops for women. The girls opened up about personal issues and situations that they would not usually mention to other people or in other spaces. Fundación Mingako saw the union of the neighbours that participated in a series of workshops. The groups noted that people returned to their homes more interested in maintaining the relationships formed during the workshops. Activities and workshops developed in the allotment revolve around the community. People created ties and returned home being part of a group. For Biohuerto UC, the allotment allowed a:

real appropriation, not only of the space but of the social networks that can be formed around a community allotment; I feel it as a want to get back together, as a want to have a neighbourhood again, to be back connected with something else that a simple everyday greeting in passing.

And that feeling was valued at work and in workshops, that ability to cross "*the street again to greet the neighbour*" (CS9) that was lost to the individualist rhythm of life. In that perspective, for CS13, the allotment helped the *"neighbours to meet each other, not only to meet the people in the allotment but also simply contact with neighbours*". And then that closeness allowed them to "*overcome the participation as neighbours, we became neighbours-friends*" (CS1). For S2:

"*It is like a rapprochement between neighbours, something that did not happen before, because people are super individualistic, each one at home, so when they have a communal space, they totally change their perception, the neighbour who is going on vacation can tell the neighbour that is in the allotment: please, can you take care of my house? So, they are creating other types of ties, for the simple fact of living together in that space, so I think that this is a great advance, as I tell you they go from being individualists to looking like a community, to looking at the neighbour, looking to the neighbour in front, creating relationships, focusing on the same allotment, so that is a benefit apart from recovering these allotment spaces*".

Despite the active work UAPs did to connect with different actors and involve the community, the allotment's presence was enough to attract people. Huerto Comunitario Mapu Wangulen perceived that some residents approached the allotment to ask for specific plants or medicinal herbs they needed or used the allotment to sit down without participating in the activities. While this could seem unimportant, for UAPs, these actions were a form of participation since they showed that the residents thought their allotments were open and welcoming spaces. Some of these sporadic participants were also identified by Huertablock. During their events, especially on sale days, the old ladies visited the allotment:

eat their soup here, they take their mild wine, usually in winter, and they talk here, they gather here, and that is really good because in the Villa, not even the Neighbourhood Council works, there is a Neighbourhood Council, but nobody goes, and we do summon.

Huerto Comunitario La Berenjena mentioned that "*spaces of political participation, the spaces of social participation do not exist, so this space generates that participation from how one gets involved in an honest way*" (CS1). For scholars,

communities had different social and political capital that allowed them to mobilise people. They pointed out that, unlike wealthier communities that had more power to mobilise forces, more impoverished communities had a reactionary culture of participation that comes from the *tomas*[19] or neighbourhoods that have a particular formation and heterogeneity (E3), which explains the reason for the many UAPs formed on neglected spaces by people of middle to low income and not in the wealthiest areas. However, despite the levels of participation, UAPs emphasised the community element of the allotments, including active and passive participants. As CS9 mentioned that "*the allotment has sustainability, provided it is a community activity, not when it is individual*" (CS9).

5.3.3   Empowerment

Urban agriculture opened spaces for people to reconnect with their neighbours, generating conversations, community and networks. UAPs recognised that allotments were the first step for changes, a platform to communicate discourses and recreate lost connections in the neighbourhoods. Huerto Libertad mentioned that "*the allotment, as a tool, is at the service for social cohesion, for people to gather, for people to share, for people to learn, so that is not even questioned*". However, they were not the only group that perceived allotments as more influential. For Huertablock, urban agriculture was a "*façade organism to mobilise and create awareness*" and "*a showcase to motivate people,* [because] *this space is a place of propaganda, a place of mobilisation*". For many, the allotment was "*the excuse*" to create a community (CS1 and CS25), a tool to activate citizenship and a motor of integral citizenship (CS9). Fundación Mingako referred to this characteristic of the allotments:

> *We see urban allotments as an element to discuss the sustainable paradigm and the sustainable paradigm that deep ecology normally presents, not from a paradigm where urban agriculture is a possibility of having more food, but from an urban agriculture that allows us to gather and discuss as a community how we want our sustainable inhabitants in the territory we inhabit.*

UAPs recognised the social impact and the potential of community growth in allotments since allotments were places for "*gathering people, of articulating a social movement*" (CS11). Indeed, Huerto Comunitario La Berenjena mentioned that "*the*

---

[19] See footnote 8 for definition.

allotment is the motor space" that "*strengthen other dynamics that the system does not have and that it lacks*", especially in the areas usually associated with social cohesion. Ecobarrio Patrimonial Yungay agreed because for them:

> *the environmental impact is minimal with respect to the social impact of working in the allotment with the neighbours, to interact, to generate networks. That in activities can participate from children to senior citizens, a super familiar issue, so I think the social impact has been greater.*

For some groups, it was precisely that multigenerational characteristic that made the allotment so valuable. Huertablock saw that their events gathered residents from different generations who talked and shared the space. Huerto Comunitario Mapu Wangulen also addressed the same situation because they deliberately integrated the idea of shared parenting in their allotment. This was a more indigenous concept that addressed a sense of community where "*your children are mine, and while you are doing something, while you are learning, I take care of them, and they will be beside you, playing in the allotment, watering, throwing water and nothing will happen to them*". They emphasised that this decision allowed women to participate in the allotment activities, stripping them of their role of caretakers, mothers or partners, and empowering them as independent women. Even the Municipality of Macul wanted the community to work in this type of intervention because they wanted the neighbours to "*empower the space because, in the end, they will maintain the space*" due to their attachment to the residents and the land that they formed during their interactions in the allotment,

UAPs empowered people by providing different tools according to their needs. Huertas Vecinas Antu Newen mentioned that "*the idea is to impact the neighbour because people tend to hide, but the allotment is the opposite, it invites you to open up, to make friends*". For that reason, they provided a space in which people could develop different ideas. Some UAPs preferred to focus on information about the indigenous communities (*Mapuches*) and their struggle for the territory (Huerto Comunitario Pu Pichikeche). In contrast, others wanted to educate the community about specific socio-environmental problems and people's responsibility in society (Huerta Libertad). Other UAPs wanted to create a space-oriented to specific areas. Huertablock opted for more educational and social topics. Cultivos Urbano instead wanted to promote social reintegration, environmental and psychosocial improvement.

Due to the different areas that Fundación Mingako covered, they considered their group a space for promoting sustainability ideas. Huerto Comunitario FAU, due to their closeness with students of Agronomy and Forestry, used their space to question the food production system, food sovereignty and seeds ownership.

Similarly, Biohuerto UC preferred to refer to the students' backgrounds and reflect on how they wanted to live, produce, and relate to the environment. Huerto Urbano Yungay opted to teach the community about the work in the allotment, environmental issues, and ecology. Huerta La Berenjena summarised the relationships of UAPs and the community: *"the allotment does not reach everyone, but this space is a meeting point for all those who were swarming with that need to create […] from the reconnection with the land"*. Furthermore, because of the different approaches provided by the groups, people could find what they needed in all those different UAPs.

5.3.4 Resistance

Urban agriculture was perceived as a form of resistance against the capitalist system and neoliberalism that controls consumption and promotes individualism. Indeed, Huerta Comunitaria Mapu Wangulen explained that their *"allotment has always had a very political vision about what urban agriculture is, as a way to resist the neoliberal system"*. This idea was shared by Biohuerto UC, who saw *"the emergence of community allotments as spaces of resistance to the urban model, the relational model,* [and] *the socio-environmental crisis"*. Groups perceived urban agriculture as a passive form of resisting where they provided knowledge by informing the community about different social and environmental issues, but also, they considered that urban agriculture provided them with a way to understand society, actors and their relationships that were less influenced by the current socioeconomic system that prefers individualism and consumerism. Huerto San Francisco explained that while neoliberalism maximised the economy, the allotment maximised building a space of abundance, collaboration, horizontal, generous, which for them was in total opposition to neoliberalism objectives. Scholars agreed with these ideas, while E3 explained: *"We are in globality that is reflecting on what human development is, so a community allotment is considered as a rereading of the development model"*, E1 noted that the

work of UAPs *"is like a response, a claim or resistance to the negative effects generated by the neoliberal model and executive problems* […] *so you see that reflected in the urban green in Santiago*".

UAPs considered that some of their actions in the allotment were examples of resistance to the economic system. Although food production was not the group's main goal, knowledge of how to produce their food was considered a break in the system where vegetable production was often ignored since it was easily obtained from supermarkets. CS12 explained that food knowledge and food production were an action against the system because it involved stopping buying vegetables in the supermarkets and talking about food sovereignty and self-sufficiency, which was usually not raised outside the allotments. For UAPs, the increased knowledge of the population led them to question the system and with their work, they were helping them realise the problems with the economy. UAPs have big plans and goals. They are proposing different actions and views to the participants of the gardens, but the scope they reach is still smaller, and despite the benefits of having new ideas for a healthy political and social conversation about the future of society, the impact is still shallow. Huerto Comunitario FAU explained that by:

> *making an allotment has a political background; it has a background of a way of thinking and way of seeing the world because you are questioning why I am paying so much money for lettuce if I can really produce it here, in my home and it is free.*

One group explained that sometimes in the allotments, people plant trees and vegetables that others will enjoy in the future and that perhaps they will not enjoy. For them, that was a revolutionary way of perceiving the allotment's generosity, which was contrary to the idea of instant satisfaction highly promoted by the neoliberal system, where people need to enjoy things right now. However, it was not just the production of food considered as resistance. UAPs considered that the voluntary work used in the allotments was another way to resist the system because it went against the neoliberal market logic where everything had a price. Members worked in the allotments despite not receiving remuneration since they looked for benefits associated with nature and people. However, for others, the idea of resistance went further. Huerto Comunitario Mapu Wangulen mentioned that the ideas of self-supply, autonomy, making their clothes, growing their food, creating their products, cooking for a large number of people, educating themselves were other ways of resisting a

system that made people dependent on material objects, supermarkets, technical agriculture and shops. Huerta Comunitaria Las Campanas agreed that using urban agriculture for those actions:

> *it is like decolonising, like autonomy and independence. I can do it alone. I do not need the system. I can still do my things. It is a revolutionary act to say that I do not depend on the system, I can manage, and it does not matter if others do not do it, but let the idea remain; it can be done.*

UAPs was perceived as a revolutionary activity used to provide alternatives to improve people lives. CS19 considered urban agriculture a platform to communicate a different discourse from the one currently established in Chile. In fact, for Huerto San Francisco UC, urban agriculture could be understood as "*a social protest around the system, because in the end, when we talk about food or talk about agroecology, we are talking about that, about the political aspect it has*". Despite that Fundación Mingako declared that they were not politically inclined. They knew that by educating the population, they were doing politics. Every time they taught eco-education classes and talked with the participants about environmental and social topics with different ideas and concepts than the used by the current regulations, people realised that those activities should be covered by the municipality, which led them to wonder why that did not happen and why the municipality was not working on the environmental problems on the neighbourhoods. Huertablock also mentioned that their work was revolutionary, ideologised and political. Otherwise, they would not be interested in the community or aware of their work's repercussions at the local, municipal or regional level.

Even Huerto San Francisco and Biohuerto UC noted the change of perceptions when they acquired more knowledge about agriculture topics. They noted that most of the allotment techniques were different from those taught by their professors in Agriculture bachelors, which for them was a neoliberal education based on a business model oriented to the exploitation of resources and generation of rentability. For Biohuerto UC, the allotment worked as a protest against what they were taught. Huerto San Francisco UC agreed, "*the allotment has a certain resistance towards what we were taught* [in university]. *More than resistance, I believe that is more an act of protest in the sense that we were going* [to the allotment]*, we were there, we did things*". As mentioned by the group, the act of resistance was not just about acquiring new knowledge, which was already different from the university's regulation, but also

about doing physical presence in the allotment, working there, and using techniques based on sustainability management. Even though CS9 described that the work in the allotment offered "*another way of inhabiting the world, it is a more leisurely way, a more responsible way, a more methodical way*", which was a "*radically different stimulus to the classical stimulus of the modern city. I think it is a change, not only at the level of how one looks but also how one relates*". Moreover, that revolutionary and resistant attitude was recognised by some other actors that did not share the same perspectives. Huertablock believed that their discourses and actions must have something revolutionary. They have a police car parked outside of the allotment for months and were also visited by them sometimes, despite that they did not cause problems with their work or activities.

Although UAPs intended to generate real impacts in society through the generation of connections and the provision of knowledge in an open and accessible form, they recognised that urban agriculture could fall in a thin line between resistance and marketing, and therefore could be easily used by some actors as a way to generate income or political propaganda. Fundación Mingako knew that urban agriculture *"is an alternative and a generator of education against formal education that makes you one more sheep of the system, but it is also true that the system is chameleonic and from there urban agriculture is generated as a product"*. CS10 was clear when affirming that *"urban agriculture as a word is a very large concept that can be perfectly developed in the lines of capitalism",* it is a *"concept that may seem very revolutionary* [but] *can continue to deepen capitalism"*. UAPs understood that urban agriculture could easily grow under capitalist logic if used for the market's benefits. Unfortunately, they knew of a few cases when this was already happening. Huertas Urbanas de La Reina knew some small businesses that sold allotments ready to install on the ground or walls. However, they mentioned that most of them lacked experience in agriculture or gardening, and the plants quickly died because they were not planted correctly. UAPs also knew some businesses hired to cultivate and maintain allotments as a service, especially in the municipalities' wealthy sectors where people wanted to have allotments in their houses but did not have time to maintain them. Groups knew that some companies just supported them to comply with their Corporate Social Responsibility. All those practices where urban agriculture was used for economic benefits erased the meaning of the allotments, which according to the groups, was "*for*

questioning, for critical reflection, for resistance to or of community construction against the deployment of capitalism" (CS10). For Huerto Comunitario Mapu Wangulen, the real meaning of urban agriculture in the space was for the creation of community and the inclusion of the neighbours and *"those who understand the most transcendental part in this stay and resist from there because nobody resists anything that is super hard"*, they *"believe that everyone is resisting in their territory in the way they can because it is very difficult"*.

5.4 Chapter Conclusions

The connections observed in this research and the groups' information refer to a community movement with a conflictual relationship with other social actors. This chapter identified and defined the main social networks and discourses formed by UAPs in Santiago. This chapter's main argument is that urban agriculture formed governance networks that operated to achieve collective goals regarding social and environmental problems. Findings in the first part of this chapter are the basis for understanding the actors' relationships and roles and the reason for the discourses that emerged from the UAPs in the following chapters. The first finding of this chapter is that connections formed within and between UAPs were stronger, more durable and easier to maintain since they were in the same relegated position and needed the support of actors that understood their struggle. As a result, those connections formed with the state and private sector were usually weaker, temporary, vertical and conflictive due to the difficulty of reaching the actors in a superior position.

The second finding is that leadership is relevant in urban agriculture. UAPs do not depend on one person to create cohesion between the participants and move the groups towards specific objectives. Their preference for horizontal organisational structures means that they rely on a core group of members that help coordinate and maintain the activities or on the whole group that, through assemblies, agree on a decision for the allotment. For UAPs, agreements and consensus are an essential part of their work. The trust maintains the allotments' internal maintenance in their capacities and acceptancy of their different characteristics and backgrounds. This finding could be due to the small size of some groups that limit the formation of a clear leader or hierarchical structure since just a few people are committed to actively participating

where a larger number of floating participants cannot rely on. However, groups have a disposition for horizontal structures since their formation even when the members increase.

The third finding is that the UAPs objective of developing a low-level range of influence and impact with actors from their neighbours and municipalities resulted in more permanent connections. Groups recognised the difficulty of keeping participants travelling from afar and the challenges of maintaining connections with UAPs from other municipalities due to the limited available time. They also mentioned the good relationships established with the local business and the supportive relationships formed between UAPs from the same municipalities, forming an alliance of mutual support and cooperation that are not shared at the same level with the large business. This shows that despite the large networks they can form and the different activities they can include their idea of focusing on the local level is the one that brings better results over time.

The fourth finding of this chapter is that all groups have a specific orientation that affects their networks. Because they all mentioned the same story-line that their intention was not food production but the formation of social connections, they had different forms to achieve that goal. They used the allotment as a platform to begin to form relationships and spread their discourses of resistance and protest to the neoliberal economic system, and propose a new structural organisation, economic system and educational system. Due to the type of discourses and impact they wanted to produce, most groups had a clear limit of actors they accepted as partners and a preference for sustainable and social-oriented actors who shared similar ideas. This results in that some groups excluded themselves from governance arrangements due to political, environmental or economic differences with some actors, while others felt excluded due to their orientation. UAPs can involve various actors from different levels and interests. However, most of those connections are sometimes limited to one-time interaction and activity, which are not enough to form network governance due to interactions' frequency and unequal position with other actors.

Finally, it was found that UAPs emerged in response to dissatisfaction and a need for spaces to share their ideas. People saw in the allotments a permanent place to continue political and social conversations from different social movements and found in there

that they could promote different discourses with actors who shared similar views. In this case, the social networks helped them work with actors interested in the environment, society, and the socioeconomic system and helped them promote and disseminate their discourses. Citizens wanted to raise conversations on empowerment and resistance issues that have less space in daily conversations, and the allotment was their platform to do so, especially considering that these conversations are usually contrary to the work of the state and private sector. This chapter has explored the general structure of urban agriculture social networks as a basis for discourses analysis. The next chapter is based on the findings of this chapter. It continues with the analysis of discourses to explore how knowledge is used and reproduced in the UAPs, and what the sustainability awareness of the actors is related to urban agriculture in Santiago.

Chapter 6. Circulation of Knowledge and Awareness within Urban Agriculture Networks and Discourses Coalitions

> "*This is the beauty of the allotment. There is no great expert, a country lady knows a lot, so I value her as an expert"* (Huerto San Francisco)

6.1 Introduction

This chapter continues to provide explanatory elements to the sub-questions 'What are the main social and discourses and storylines co-produced by the actors involved in urban agriculture and their relationship with neoliberalism?' and 'How have networks and discourses related to neoliberalism and environment co-evolved with the emergence of urban agriculture projects in Santiago?' Specifically, it provides a more specific answer to the questions about how knowledge is used and reproduced in the UAPs, and what is the perception of the UAPs of the environmental awareness of the actors related to urban agriculture in Santiago. After obtaining an explanation of the networks that are formed between the different actors and the social discourses produced by UAPs, this chapter focuses on the discourses on knowledge and environmental awareness that emerged from the interviewees. The social relationships formed by the actors involved in urban agriculture are crucial to understanding the development and circulation of knowledge between actors. By paying attention to the relationships and context, it is possible to understand the networks, actors, and activities producing and circulating social and environmental knowledge in UAPs. The chapter is structured in two main sections covering the aspects of knowledge, expertise, experience, and environmental awareness around urban agriculture in Santiago. The first section presents the analysis of the circulation of knowledge and experience through urban agriculture networks, emphasising the recognition of the experience and knowledge of indigenous and rural communities in agriculture and the

processes and transfer of knowledge between groups through activities and workshops. The second section analyses the main discourses about environmental and sustainable awareness of the different actors to understand their positions and actions concerning the environment. Articulating the findings shown in this chapter, I propose that urban agriculture provides environmental knowledge and awareness through its activism, influencing the social and environmental perspectives of actors of their networks. I propose that the environmental awareness of the actors working in urban agriculture influences their role in the networks and explains their approach to the networks and the UAPs.

6.2 Knowledge and Expertise around Urban Agriculture Projects

In this section, I analyse the relevant discourses about the knowledge and expertise that UAPs provided, the actors involved in producing and reproducing knowledge in the groups, and the information generated because of their work. In their discourses, different groups recognised urban agriculture's potential to provide knowledge, recover ancestral traditions, and connect people with nature. However, the activities and the depth of knowledge they provided varied according to the workshops and the groups' ideas about nature, old traditions and sustainability. The emphasis here is on the sources that shaped the groups' information in their work, the type of knowledge that emerged in the groups, and the reproduction and circulation of knowledge between the groups.

UAPs in Santiago emphasised the story-line of allotments as sources of knowledge rather than as vegetable producers. Many groups had clear objectives about the allotments, highlighting aspects beyond food production. CS21 explained that production "*is not the goal,* [because] *we do not base our food in the allotment*". And not even for economic purposes, since Huerto Comunitario La Berenjena explained that in the allotments, "*there is a greater flow of knowledge than economic flow*" because most ended up distributing rather than selling the products within the community. Most groups agreed that their main objective was to create social connections and transfer knowledge to residents through activities. However, not all started with an education mindset. Viventerio explained that despite their original intention, their activities "e*nd up being more educational than productive"* because

the participants were more interested in learning about medicinal herbs than in growing food to consume. Similarly, Ecobarrio Patrimonial Yungay found that their allotment was more demonstrative than productive due to the small size and decided to reorient their work towards educative purposes through workshops.

Even one of the municipalities considered that *"the main theme of the allotment is education because people speak so much about this, they are transmitting by example"*. For UAPs, the allotment's educational purpose was twofold: teach the community techniques on how to work in the allotment and teach them about the cities' environmental, ecological, and social problems, especially Santiago. This idea was confirmed by Fundación Mingako when describing that:

> *rather than having an urban allotment to produce tomatoes, we have it to generate education, to generate meetings of popular education, where we can build a collective knowledge through what people believe as truth and what is indeed true from the perspective of the deep ecology.*

This change of priorities, where food production was not the main objective, but the common action that unified the different actors and interests, reordered the groups' priorities and structures, influencing the governance networks by producing a network that is not formed or oriented the distribution or production of food, but to the circulation on environmental and social knowledge, formation of community and awareness about the consequences of neoliberalism. In this way, UAPs provided social connections and education rather than food and vegetables, responding to the social deficiencies observed in the community and thus connecting with actors that could facilitate their goal.

6.2.1   Knowledge in urban agriculture

The knowledge formed in the allotments resulted from the cultural capital provided by the expertise and experiences of the community, with little participation of experts. Indeed, contact with universities and education institutions was quite limited, coming from interns who worked temporarily in the allotments, experts who gave workshops, and members with degrees in agriculture. This lack of formal expertise led groups members to self-educate (CS1, CS18, CS24, CS30) due to their deep interest in learning about agriculture. Members acknowledged their ignorance of gardening and

went through trial and error, growing vegetables with mixed success. For many, this was their first-time gardening; some were unfamiliar with growing techniques or processes, while others had no plants in their homes that could provide them with some basic gardening ideas. The groups' inexperience and ignorance did not prevent them from forming allotments and seeking ways to learn gardening processes and methods. Huerto Comunitario Las Campanas contacted people and UAPs to learn about their gardening experiences before establishing their allotment in 2018 because they were motivated but not familiar with the processes involved. When they started their work, they learnt about gardening and established a small network of supported actors they could reach out to in times of need. During this learning process, they realised that many members had basic knowledge despite not having allotments before. Some of them spent time with grandparents who had allotments and learnt from their knowledge and experience even if they did not apply it.

The definition of experts in these groups varied to include people with sufficient knowledge in a subject who could be recognised as experts even if they were not professionals in the area (see Chapter 3, section 3.3.5 on lay knowledge), since, in these spaces, knowledge was not only associate with trained professionals but extended to include those with agriculture experience. For Huerta San Francisco, "*this is the beauty of the allotment, there is no great expert, a country lady knows a lot, so I value her as an expert".* Everyone's knowledge was appreciated in the allotment because everyone had some information related to agriculture to share, either because they saw their families gardening, they belonged to an indigenous community with agricultural traditions, they had allotments in their homes, or they studied from books or workshops. In the allotments, knowledge and experience were not restricted to some, but for the groups, it was open to all because it was considered an honour to transfer knowledge to others.

UAPs opened their spaces for experts and professionals to give talks and participate in the allotments to learn from them and compensate for the members' unequal levels of knowledge. However, they were aware that even a rural elder could provide gardening advice on some topics, such as seeds propagation (CS20). Huerta San Francisco mentioned that "*allotments are spontaneous at the level of knowledge,* [because] *they reveal knowledge"* that people possessed but could not share in other

spaces since their knowledge came from experience and tradition. In UAPs, members resumed a broken cycle of transmitting information about herbs' properties and planting methods that began with their parents and grandparents. In this way, allotments became "*spaces to share knowledge*" with the members in their own space and with UAPs through the different networks the projects formed (see Chapter 5 for Networks). Therefore, this emphasised the idea proposed by E2 that "*citizen learning is connected*" since all members were connected to a broader network that facilitated the circularity of knowledge between actors, transferring and improving information as different networks moved it. Huerto Comunitario La Berenjena mentioned that this "*flow of knowledge*" was generated in the allotment, where "*people who like the space, who like the group, stay for a while, deliver their knowledge,* [and then,] *they leave with something".* This reflected the reciprocity of sharing and social learning involved in the allotments. People exchanged materials, ideas and experiences, learnt from each other and then went on to do the same in another batch, emphasising the reciprocity characteristics of networks through the exchange of cultural resources. For Herbarium, the interactions and conversations between members were already producing exchanges since the conversation that emerged about food, recipes, and customs were considered as *"an important cultural exchange",* accentuating the cultural capital that these UAPs and governance networks provide to the members and some members of the community.

For many groups, education was a central objective of their work in the allotments. However, this education was not just a lecture. It was a demonstrative and practical experience where knowledge was lived through all senses. As CS29 explained, "*working with your hands allows you to acquire knowledge*". Huerta Libertad explained that "*the most important thing has to do with education, with generating activities so that people understand the importance of seeds, so that they understand what food sovereignty is so that they understand that medicinal plants are used for this or that*". From that interest in sharing information with the community to increase their awareness, knowledge moved out of the allotment and to the members' daily lives. Huerto Comunitario Pu Pichikeche used some activities on the topic of food waste to integrate:

a critical reflection on how the city works, how capitalist production works and what are the alternatives to that, how the world works, how we interact with the ecosystem, and how we can, from there, see some alternatives of the state of progress of capitalism.

The groups wanted to teach many subjects to many people to change their perceptions, their ideas about their lives in cities, reflect on their position in society, and the actions they could take as urban actors. S5 mentioned that allotments allowed the participation of *"other types of environmental issues such as sustainability; and then what we promote, especially with the workshops, is that there is an environmental education space around the allotment that produces food, but at the same time, that questions things"*. As food production to eat or sell was not the main priority of UAPs, the provision of experiences and ideas became their action plan. For Huerta Libertad, educating the community was fundamental because "*if there is no environmental or social education, there is also no education as consumers*", which was why they argued for the environmental problems that society faced. Therefore, they centred on socio-environmental education to make people aware that *"there is a socio-environmental problem and that all of us is responsible for what is happening"*. Urban agriculture activities were used to educate people about their food and environment, making them responsible for making informed and educated decisions in their daily lives.

Fundación Mingako was a peculiar case within the groups regarding its vision of education, knowledge and sustainability. One of the members recognised that they did more than just "*an activity and teach a technique. What we do is an ecological training, because each activity we have is related to socio-environmental problems*". The group began its work in 2015, cleaning up an abandoned landfill. Since the site was too dangerous for outsiders to enter because it had building materials, they used their two-year cleanup period to conduct detailed research into the neighbourhood's needs. Based on their research, they identified "*16 socio-environmental problems that are related to sustainability, so each workshop, each working day, each project, each area, has associated socio-environmental problems*". They developed their methodology based on 'Experimental Learning, Pedagogy of the Earth' by Moacir Gadotti and 'Popular Education' by Paulo Freire to deeply integrate their education and ecology ideas into a fluid methodology coherent with the literature that was used in the structure and orientation of the group. For them, each activity they planned had a

meaning and an objective, so their work *"it is not just giving a technique or learning to reuse waste or learning to manage an allotment,* [but to reflect on] *why I am learning this, what do I want to achieve learning to manage the allotment".* Fundación Mingako focused on getting people to reflect on the topics and techniques provided and, in that way, reconnect with the land and the knowledge produced there. This was a problem observed by other groups, who recognised that the urban population lost traditional knowledge that was part of their identity due to migration and life in dense cities. Second and third generations of rural migrants had some vague knowledge and attachment to agriculture, but not at their ancestors' level. Hence, the groups' interest in recovering the knowledge of indigenous and rural communities that had lost for the urban population. For CS21, gardening work was formed by little pieces of cumulative knowledge contributed and received from the experience of different people.

6.2.2   Indigenous and rural communities' expertise and experience

Urban agriculture allowed the exchange of experiences and knowledge from everyone in the community, valuing people for their knowledge and not for their educational qualifications. However, two groups were highly valued within the members by their cultural capital and considered experts for understanding nature and agriculture techniques: the indigenous communities and the rural communities.

Indigenous communities

Different indigenous communities currently live in Chile, and many still maintain their traditional practices and cultures. They are known for their connection to nature, understanding of agricultural cycles, and knowledge of natural medicine due to their ancestral bonds and worldview. Their understanding of nature, life and agricultural practices was highly valued by UAPs who expressed interest in introducing indigenous knowledge and practices into their allotments. One of those groups that showed a more profound interest was Huerto Comunitario Mapu Wangulen. Their relationships and group activities integrated the indigenous worldview of femininity, land ownership, preservation of nature, and the Earth's honour from the Andean and Mapuche cultures. From Andean cultures living in northern Chile, they adapted

weaving and embroidery techniques in their workshops to represent the indigenous perspective of feminine independence that can create their garments to wear or sell. From Mapuche culture living in the country's central-south, they integrated their vision of resistance for the permanence and ownership of the land or the *Wallmapu*[20]. They felt a kinship with them due to their mutual struggle for permanence in the territory. While Mapuche fought for the recognition and the return of their ancestral land, the group fought against the destruction of their allotment and their relocation. From the indigenous communities in general, they integrated the vision about the greatness of nature and the honour of *Pachamama*[21]. As they explained, communities always knew the relevance of nature, but the state and the market "*cut that thread of knowledge, and now we are taking it back*".

However, groups were not only integrating ideas. They were also embracing indigenous practices. One of the most common was the *Trafkintu,* which consists of a Mapuche ceremony performed to exchange seeds and knowledge among community members, which was also considered a social and cultural practice. This ceremony was commonly celebrated by the groups (Colectivo Sustento, Huerto Comunitario FAU, Huerto Popular Observatorio al Sur, Huerto San Francisco, Huerto Comunitario Mapu Wangulen, Viventerio) since it allowed the creation of connections between groups, circulation of knowledge among the members and the preservation of rare, local and no-transgenic seeds. Another type of integrated practice was the use of ancestral views on medicinal herbs as a solution to health problems or as a complement to modern medicine. Viventerio, who worked closely with municipal health centres, perceived the importance of indigenous communities' knowledge and rejected the idea of cataloguing their medicine as shamanic or mystical just for advising on complementing modern medication with natural ones. In most of their workshops, members taught people about the medicinal properties of herbs to cure different diseases, a knowledge that has been part of indigenous communities for centuries and was recognised by the Chilean Ministry of Health, who published a book with about 103 herbs that are recommended as a complement to modern medicine. The group also

---

[20] Ancestral territorial of the Mapuche people. The Mapuche have a long conflict with the state due to their interest for the restitution of their indigenous land that is currently owned by no indigenous people and forestry companies.
[21] Mother earth. Goddess, from Quechua origin, revered by the indigenous communities in the Andes. It represents earth and nature as a unity.

considered the construction of a *Ruka*[22] where *Machis*[23] , who continuously travelled from other regions or cities to the capital, could help patients maintaining their cultural connection.

Another example of the inclusion of indigenous activities in allotments was demonstrated during fieldwork. During my interview at Huerto Comunitario La Berenjena, a *Machi* was invited to perform an allotment purification ceremony. In this ceremony, the group members and the *Machi* sang and played instruments while she burned leaves and walked around the allotment purifying the land, calming the spirits and asking the land and spirits for permission to continue using the allotment. Before the ceremony, the *Machi* explained that the entire land was once inhabited by indigenous people, that their spirits were still connected to the land. For that reason, they should be included in the vision of the allotment. This made the group more aware of an ancestral relationship with the land in which the indigenous people believed. After the conversation, they realised that "*it is no longer a continuity of time from when we started in 2012, this it is really ancestral wisdom*" because it included the spirits from the past. Thus, their work in the allotment became "*a barter, we give a lot, and we also receive from what we have done here*", whether from the members, the spirits or nature. Other UAPs also integrated ceremonial practices in their allotments. Huerto Urbano Yungay tried to maintain Mapuche religious practices by coinciding its activities with the relevant indigenous festivities to honour the communities, especially the Winter Solstice (June), also called *Machaq Mara* (Aymaras culture), *Inti Raymi* (Quechua culture) or *We Tripantu* (Mapuche culture), which celebrates not only the birth of the new sun but also corresponds to the Indigenous New Year. This celebration was less performed than the *Trafkintu* since it occurred just once a year, but it was carried out with great respect. Viventerio even invited representatives of the Mapuche and Aymara cultures to perform the ceremony in the past. The solstices and equinoxes are days of great relevance for indigenous communities because the sun and moon movement help them understand and follow nature's cycles, vital for livestock and agriculture.

---

[22] Traditional Mapuche house. It is considered the most important construction in the Mapuche architecture.

[23] Traditional healer and religious leader of the Mapuche indigenous people.

The relevance of indigenous communities for the group referred to preserving traditional and cultural practices about land, agriculture, and life. Groups felt connected and sympathetic with indigenous communities' struggle to recover their ancestral land currently used by private owners and industries since they also struggle for permanence in the space due to forced relocations. The indigenous' respectful management of the land and nature led the groups to honour them in their urban allotments, celebrate their ceremonies, and maintain their traditions and cultures. It was their way of bringing part of the past to the present and the rural to the urban.

Rural Communities

Rural communities' knowledge was relevant to UAPs. Groups explained that decades ago, it was common to see allotments in cities. All houses had allotments where people grew vegetables and small animals. However, the situation changed around the 1980s when, during the dictatorship, allotments started to disappear into backyards, and people began to grow medical herbs instead of food. For some groups, people who lived in the countryside and worked the land had more knowledge about plants and nature than people that were born in cities. Huerto Popular Observatorio al Sur observed in its allotment that:

> *the agricultural memory is still latent in the grandparents, in the people of that generation or in the parents who lived in the countryside or who have a direct relationship with the countryside and who have just been a generation here in the towns.*

CS1 mentioned that their *"grandparents were from the countryside, all previous generations were linked to the rural world, emigrated due to economic needs and, in addition, what was promoted from above was urbanity, industry and all that"*. Groups noted that people who came from rural areas or were taught by grandparents learnt about plants and agriculture as a way of life, with the knowledge transmitted by tradition, heritage, and experience. As CS8 said, UAPs were "*not inventing the wheel of sustainability*", what they did with their activities was "*rescuing knowledge that already existed*", as they realised when talking with their grandparents, especially those living in municipalities from the peripheries, was that they had a large amount knowledge that they kept within themselves:

they had a little allotment, they worked with composting, vermiculture, those were things that were typical of this territory, so it has helped us to reassess what a behaviour more in accordance or more harmonious with nature meant and also to revaluate the social fabric.

CS27 also noted that people living on the periphery contributed the most with their knowledge of nature and allotments. Groups assumed that because they migrated from rural areas, they replicated the allotments they had before in the city to maintain their traditions. Huerto Popular Observatorio al Sur pointed out that many older women had deep agricultural knowledge, that if it were not shared in places like the allotment, it would be lost. Ecobarrio Patrimonial Yungay also referred to the loss of information. They had seen "*many elderly neighbours who have an incredible knowledge about plants, about nature, about what to plant and combined with what other plant, a knowledge that has been sleeping, and that is being lost, like everything else in this system*". It was the allotments that allowed them to reproduce that knowledge and to maintain it alive. It is relevant to note that the case of rural and indigenous communities' level of knowledge and traditions does not mean that their techniques are flawless and perfect. It might be that current agriculture practices are more advanced or have tried different areas that these actors have not experimented with, as it could be that because these actors have worked longer in the land, they have techniques that are more efficient and with better results. For UAPs, the point is not about more or less food production. Their appreciation is about life forms, environmental perspectives, cultural traditions and closeness to groups that are part of the Chilean history that have been disconnected from the urban life experienced by many of the groups' members.

6.2.3   Processes and Transfer of Knowledge

The knowledge generated by the people and recovered from indigenous and rural communities circulated through the networks formed between groups and actors, changing each time that members shared their experiences during meetings, shared their expertise during workshops and shared knowledge during conversations. These connections created a collective knowledge between the groups and members, forming what Wenger (2000) called a Community of Practice. The relationship between Huertablock and Viventerio was based on mutual assistance. Huertablock explained that "*we have already shared workshop experiences, they have given us workshops,*

and we have returned by giving them some workshops, and well, we have also visited, not only agricultural things", and they continued, "*we have gone several times, there was a time that workshops were given on Thursdays, we went several weeks, then they came here*". Huertablock considered Viventerio, an expert in herbs, for its work on the medicinal benefits of allotments. They approached them to learn about this topic, but during the process, they also provided Viventerio with knowledge about their experience in the allotment, forming a collaborative relationship. However, not only connections were formed between UAPs; members of the groups also formed strong ties. Viventerio explained that neighbours who participated in a series of workshops continued to visit the allotment each week for lunch and spend time together after the workshop ended. They did not want to lose their connections. A similar situation happened to Fundación Mingako. A group of participants of a series of workshops became so close during the activities that they asked the group to do more workshops to continue studying together. These experiences demonstrated that members and groups worked together towards the same goal and had the opportunity to ask for what they needed to achieve those goals. Huerto Popular Observatorio al Sur explained that in allotments *"where everyone has something to say, and they are equally important when doing things"*.

Groups educated their members and participants during the day-to-day work but provided workshops on different sustainable topics to communicate information on a better platform. These workshops were a fundamental part of the activities since 18 of the 19 groups had workshops during March 2018 and March 2019. The only exception was Huerta Comunitaria Las Campanas since they began in September 2018 and were still working on its development as an allotment during the analysed period. These workshops were led by self-taught members of the more experienced groups or individuals but were not always led by professionals. They covered a wide range of topics, from sustainability to legal issues, to raise awareness of sustainability within the groups and in the community. Table 4 shows the main themes covered by the groups (see Appendix 5 for a detailed summary of the workshops). Of the nine themes identified, the most covered were Health and Techniques. The first referred to herbal plants' use to develop sustainable alternatives to the most traditional medicine, cosmetic and hygiene products. The second referred to sustainable activities to complement the allotment or to teach how to design structures.

Table 4. Topics of the workshops provided during March 2018 - March 2019 by UAPs.

Theme	Workshop topics
Health	Aromatherapy, Deodorant, Face Mask, Gel, Household cleaning products, Medicinal Herbs, Meditation, Mouthwash, Natural Creams, Natural Medicine, Ointments, Phytocosmetics, Phytotherapy, Sanitary Pads, Soap, Therapeutic Landscaping, Toothpaste, Yoga
Techniques	Apiculture, Bio construction, Bird watching, Composting, Crop Association and Rotation, Ecological Allotment, Allotment Design, Hydroponics, Mother Tinctures, Permaculture, Seed bombs, Thermofusing, Vermiculture, Vertical Allotments.
Social and Sustainable Theories	Agroecology, Biodiversity, Biological Corridors, Climatic Change, Conservation, Ecology, Feminism, Food Sovereignty, Herbology, Mining conflict, Renewable Energy, Renewable Resources, Water shortage
Crafts	Binding, Carpentry, Dyed in paper, Embroidery, Sculptures, Knitting, Mandalas, Mosaics, Mud Construction, Prints, Serigraphy, Xylography
Silviculture Practices	Seedlings, Irrigation, Propagation, Pruning, Cuttings, Sowing, Transplants, Cultivation
Allotments Elements	Fertiliser, Growing Bed, Native Flowers, Plagues, Seeds, Soil, Urban Agriculture, Water
Waste	Organic Recycling, Organic Waste, Recycling, Textile Reuse, Waste Management, Waste Reuse
Food	Bread, Cooking, Fermented, Healthy Food, Seasonal Food
Social Activities	Conversations and Meetings, Documentaries, Eco-fest, Movies

The variety of topics addressed by the groups showed that their interest was broader than urban agriculture. Allotment Elements and Silviculture Practices, which referred to actual teaching on how to garden, were in the fewest numbers covered by the workshops. Some interviewees mentioned that workshops were not always necessary because these topics were more involved in day-to-day teaching and learning. Groups attempt to provide extensive and detailed information on the allotment processes and practices, including even the more theoretical themes that involved allotments and sustainability, such as Agroecology, Ecology and Food Sovereignty. A less related theme was Craft. This involved various activities in teaching skills, not focused on agriculture but more connected to sustainability. Using recycling material in workshops or teaching non-traditional skills emphasised that allotments were more than production sites, but places where topics such as Waste Management and Healthy Food could be integrated.

Figure 12 shows the number of different topics that UAPs provided to the community. The UAPs with a higher number corresponding to Huerto Libertad and Viventerio. These two groups worked mainly on the themes of Health and Techniques, providing information on the utilisation of medicinal herbs to obtain by-products and the use of

different sustainable techniques to improve the allotments. Those groups with the lower number had a more practical approach to teaching, and instead of creating workshops, they provided their knowledge while working in the allotment. For that reason, workshops and working days were, in most of UAPs, free for the community. However, Fundación Mingako, Huerto Libertad Huerto Urbano Yungay and Huerto Popular Observatorio al Sur requested a small amount of money from the workshop attendees to pay for the mobilisation of the presenters if they come from other municipalities or to pay for material used during the workshops. Just two groups had fully paid workshops. One was Fundación Mingako, who provided free workshops to the community, but required payment when the attendees were organisations or groups that could afford the price; the other was Herbarium, which offered long courses on specific topics as scientific drawing, alchemy, aromatherapy, and ergology.
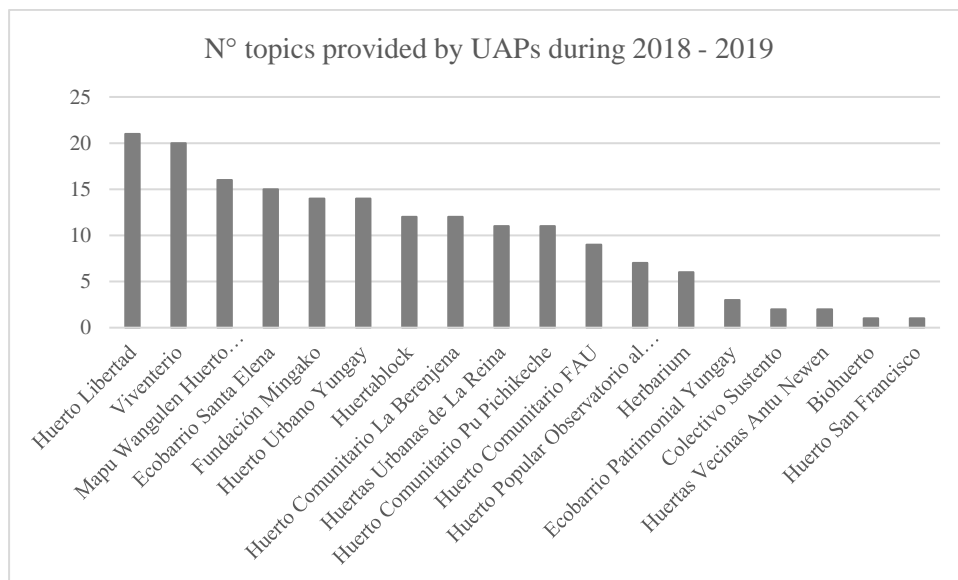
Figure 12. Number of topics UAPs provided in their workshops during 2018 – 2019.

UAPs offered workshops with topics beyond gardening. Fundación Mingako believed in "*rescuing knowledge that already existed*", such as carpentry and welding and modernising them by integrating pressed plastic into the workshops to use the plastic waste in something useful for the community and the environment. As part of their work, Huerto Comunitario Pu Pichikeche included weekly visits to the farmers market with members and children to collect organic waste to make compost, which was their way of recovering waste and producing positive impacts. Both UAPs highlighted the

relevance of integrating composting, vermiculture, recycling and cooking to close the food and waste cycle and reusing materials in the allotments.

Workshops were used with the intention to impact the community. Colectivo Sustento worked producing social change using theatre and urban agriculture. Their most memorable experiences were their project destined to used urban agriculture in two juvenile detention centres, SENAME[24] (National Service for Minors, *Servicio Nacional de Menores*) in Santiago in 2015. In one of the centres where boys lived permanently, participation was voluntary, and 20 boys joined during the project's duration. In the beginning, the boys refused to participate, claiming that they did not want to dirty their clothes and said to the monitors, "*I'm not going to go to the allotment, and that is for brute people, not me, I'm cool, I don't do that kind of thing, I don't work either*". Even more, during the first class, they were asked about their favourite food, and they replied that they "*like everything but vegetables and fruits*". However, the same boys who said they hated salad were "*devouring everything they had planted*" and had no problems dirtying their clothes while gardening. In the other centre, participation was compulsory since boys just slept in the centre. During the last few weeks of the project, the group invited a public childcare centre and assigned the boys to teach the little kids. Despite the disinterested attitude with the allotment, they quickly "*adopted the role of the people who had knowledge that could pass on to someone younger*", getting down in the dirt with the little kids, guiding and correcting them with patience and care. For the group, this experience was important in the impact that the allotments caused on the boys. All their 'rebellious' attitude disappeared, and they became children again. Colectivo Sustento explained that it was a response to "*that instinctive need to contact with the soil, with the green*" that people have and especially in the case of these teenagers, who were in a situation of social and mental vulnerability, since the allotment allowed them to unlock some experiences and use the work as an emotional and physical release.

Through workshops, UAPs try to converge messages and spread awareness about current environmental situations to the members and participants, providing information that was sometimes not taught by the state, despite its relevance. UAPs

---

[24] It is the Chilean state agency responsible for the protection of the rights of minors and adolescents before the judicial system. The minors and adolescents live in houses and centres.

were deeply involved in raising awareness, providing information and campaigning on two laws processed in the parliament during fieldwork time: water rights and seeds ownership. The groups highlighted the relevance of talking about these laws for the country's sustainability and especially for indigenous communities, recognising the community's ignorance of these areas, either due to lack of interest or misinformation by the state. CS11, CS12, CS18, CS21, CS22, CS24 and CS25 mentioned water scarcity as a relevant topic of discussion in UAPS. One of the most descriptive groups on the subject was Huerto Comunitario Mapu Wangulen. They mentioned their active participation in the Walk for Water *(Marcha por el Agua)*, which brought together different organisations concerned about water to raise awareness about the resource's relevance, especially with water privatisation and drought problems. Considering that in Chilean water is entirely privatised through the purchase of 'water rights[25]' in perpetuity, the groups firmly believed that water should not be a private resource because "*it is part of nature, and we ourselves are part of nature, we depend on it, we are not consumers of it*".

On the issue of seeds ownership, CS5, CS12, CS13, CS17, and CS22 integrated the topic in their workshops and activities due to the lack of information provided to the population. They worked to raise awareness about the complications of TPP11[26] on seeds privatisation. CS17 and CS22 explained that the new legislation could make them criminals for using seeds that would become private property if the treaty was approved. The law will prevent the reuse of seeds after harvest because companies could patent transgenic seeds and all types of seeds, making farmers criminals for conserving seeds that were owned by companies such as Monsanto. All the groups, as traditional seed holders, could face problems if the law was accepted. As CS17 mentioned, they could be charged just for conserving seeds they harvested in their allotments, and the general population was unaware of that. In this way, groups not only generated knowledge, rediscovered experiences and transferred expertise but highlighted the repercussions that neoliberal practices cause in their work and lives as

---

[25] The privatisation of water sources in Chile dates to the Pinochet dictatorship. The 1980 Constitution enshrined the private ownership of water. In 1981, the Water Code established that water is a national good for public use but also an economic good. Water ownership was separated from land ownership, so that there are water owners who have no land and landowners who have no water. Nowadays it is common the auctioning of rivers.

[26] Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), also known as TPP11 or TPP-11. It is a trade agreement between 11 countries.

citizens. From this interest, UAPs formed networks with environmental and social actors that shared a similar interest in topics like the described here.

From this interest in sharing information with the members and the community to increase their awareness, the knowledge penetrated the allotments and spread abroad to other actors. In UAPs, knowledge was not static or maintained within the groups, but instead circulated to the groups' different networks. The information was transferred and improved through the networks through which it passed. The groups often exchanged talks, visited each other's allotments, participated in similar events or protests. People exchanged their social and cultural capital through materials, ideas and experiences and learnt from each other. Interviewees mentioned that residents shared their knowledge and taught others about herbs properties, planting methods, recipes, seed information, and many different topics during informal conversations, formal workshops, or any interaction. It was a flow of knowledge that started within the groups and spread outward. Instead of producing food or selling food, they were building collective knowledge.

6.3 Perception of UAPs the Environmental Awareness of Actors

As observed in the previous sections, UAPs enter into relationships with actors more closely related to their perspective of society and the environment. In fact, the different networks and typologies analysed in the previous chapter are formed due to the interest of UAPs in connecting with actors that support them in their production of local impact. The last chapter revealed the social aspects that influence the formation of some networks and modify the attitude of the UAPs regarding some actors. However, the groups' perceptions of the actors' environmental awareness are another essential part of these connections. Groups have clear ideas of the activities and actions that they consider appropriate for the environment and use them to catalogue if the actors are potential connections to accept or reject. Given that the attitude of the civil society, the private sector and the state towards the environment plays a significant role for UAPs to select potential actors, it is relevant to understand what these perceptions are and how they play a relevant role in the networking and group attitude. This section explores the most relevant perceptions of UAPs regarding the civil society, private

sector, and the state in the environment, which explains their interest in forming some networks and their negative attitude to specific groups of actors.

6.3.1   Perception of UAPs on the Role of the Civil Society in the Environment

UAPs recognised civil society as their most important integrant in the formation and development of their allotments. Indeed, the activities organised within the groups are intended to attract the community to the allotments, especially those most interested in environmental protection, water defence, opposition to contaminating projects, and reclamations of ancestral territory on the Chilean agenda (CS7 and CS11). Some UAPs perceived a change in the past years in some members of the civil society due to the increment of social movements and environmental state regulations, which makes them a more interesting actor to form connections since they share common attitudes about the environment:

> *five or six years ago, most people didn't even understand what compost was, now at least many people already have a relationship with a basic thing that is sustainability, that is composting, beyond the knowledge of the land, the allotment, the cycles.* (CS28)

Huerto Popular Observatorio al Sur saw this change with optimism for the future because "*new generations are coming with the idea of environmental education*". As explained in the previous section, UAPs place high value in education and have noted the impact of environmental education on younger generations, since similar to the urban agriculture networks work, when kids learn about sustainability, they are prone to share their knowledge with their families and friends expanding awareness to others. Some UAPs noted that the earlier children learn about the environment, sustainability, and urban agriculture in their educational centres or allotments, the higher their chance of adhering to those bits of knowledge and sharing them with their families. However, S5 was not optimistic that the improvement in younger generations transferred to all civil society, which has been one of the limitations for the growth of UAPs. S5 mentioned that people were taking sustainable actions because it was expected of them, but not because they understood the reasons behind their actions. Groups noted some ignorance in the community in activities such as recycling that the state and municipalities have been promoting with varied success. Some of UAPs workshops have explained to people the proper procedure to recycle their waste since they are not

informed. Huerto Libertad considered that in this case and many other cases regarding the environment, the problem was found in the inadequate information provided by the state and media. According to the groups, people were told to recycle by the state, "*but they don't give them the tools to know what, how,* [and] *when*". Despite that UAPs recognised some responsibility of the authorities for their incomplete education, the groups perceived a bad attitude in the population who gets angry at the recycling points because they cannot recycle all their waste instead of finding out the correct procedures in advance.

UAPs considered civil society as potential environmental supporters, especially the younger generations, but they are aware that it will require work to integrate the rest of the population since "*we cannot ask for more, because if the* [society] *design does not change, people are not going to change*" (Huerto Libertad). CS13 mentioned that despite the increase in community awareness in the last 15 years, this "*is growing at a very slow pace*". Huerto Comunitario Pu Pichikeche and Herbarium recognised that civil society had a relevant role in environmental awareness and support but considered their involvement slow and insufficient. For CS29, this is due to incongruity in people's behaviour regarding sustainability because even though "*people are recycling or reducing their waste on some things, they are also aware and waiting for the last product on the market to buy*". This proves that they are affected by the capital mindset, which UAPs want to change with their allotments. During their work in the allotments, groups have seen the disconnection of people with nature, where many do not think about "*how the fruit is produced, the vegetable, what are the tasks that this entails and what is the work behind that tool*". Similarly, Ecobarrio Villa Santa Elena mentioned that people did not understand the rhythm of the allotment. They wanted products immediately and were unaware that vegetables take weeks and months to grow and produce food. E6 noted that only after people worked in the allotment, they realised the effort involved in growing food and the costs of producing and maintaining an allotment. UAPs perceived civil society as a relevant actor in their groups, recognised the increased awareness of some of them, but knew that those few did not represent the whole population, and many were very ignorant about the environment and sustainability. However, UAPs intention was to educate them and motivate them to learn more.

6.3.2 Perception of UAPs on the Role of the Private Sector in the Environment

UAPs perceived the private sector as a relevant actor to consider in their networks, but they had some disagreements regarding the management of the environment. The private sector proposed and carried out activities that were not aligned with the groups' attitude towards the environment, and as a result, UAPs moved with caution when forming networks. Most of the differences were formed with large businesses, which the groups perceived as market-oriented and less interested in preserving nature, an essential part that UAPs try to promote with their allotments. One of the practices that the groups perceived with scepticism were Corporate Social Responsibility. CS3 mentioned that it was not always the case that companies were interested in the environment, but that "*they are interested in advertising as a company that works with this concept*". They saw that large businesses preferred to opt for widely publicised activities on many occasions, such as a public event instead of an allotment that is less attended in comparison. Huerto Urbano Yungay explained that they received opportunistic offers from large companies to work with them. However, they rejected them because they worked with different ethics and vision of the environment. The group considered that "*companies are more concerned with appearance, marketing, as if they can or cannot go through corporate social responsibility to evade taxes and those are their concerns*", and also "*with medium-sized companies, what they see in ecology, or the environment is a business opportunity*". Most of the groups disagreed with the large corporations or companies' intentions, as they approached them not for their allotment and community work but for the income they could earn from the association, "*because it is convenient for them to clean their image"* (CS24). CS2 agreed that the private sector used them to improve their perception and marketing to attract more customers now that they were 'greener'. Therefore, the networks formed with these actors were rarely formed due to the conflicting and negative perception that UAPs had about large companies.

However, some groups believed in accepting the support of some large businesses to reap benefits since they are willing to support the allotments and financial and monetary support is one of the limitations for the continuation of the groups, but all did not share this idea. Some UAPs indicated the private sector as one of the main

responsible for environmental problems, and accepting their help transgressed their beliefs. This is the reason for the connections formed with the small neighbourhood businesses found in the previous chapter. UAPs saw the local businesses as neighbours and not as the private sector. Indeed, for CS6, the "*private actors that today are promoting sustainability and green areas are small organisations*". However, UAPs explained that not all types of larger companies were working with a profit approach. Huerto Comunitario Pu Pichikeche mentioned that the cooperatives were a type of private organisation with a community approach they could trust. They worked on "*buying, exchanging and selling in terms of the sustainable economy, and the solidarity or social economy*". That was a respectable private work for the interviewee, with a solid political intention that they were willing to connect and accept. For UAPs, the interest in connecting with the private sector rests on their attitude and actions towards the environment. In most cases, groups perceived that large companies had resources to work in sustainable activities, but they did it from the market's perspective to obtain revenues. However, UAPs, with limited resources, developed activities to impact the community and improve the environment without considering revenues. The negative perspective of UAPs towards the private sector does not imply that all businesses and companies are using urban agriculture to promote their sustainable actions. Indeed, UAPs have explained that they incline towards the associations with local businesses due to a higher level of affinity because they share the territory and local experiences. It is apparent that a lack of trust influences their decisions. Groups preferred to connect and include a business that will generate reciprocity and trust in the network.

6.3.3 Perception of UAPs on the Role of the State in the Environment

UAPs considered the state as an interesting actor with the potential to be included in the networks and form connections, but they had contrary perceptions regarding the management and protection of the environment. In many cases, UAPs did not perceive that the state worked to protect nature as it should, which contravened the groups' ideas and beliefs. Like the groups' perception of the private sector, many UAPs distrusted the state reasons for their involvement in urban agriculture. Some believed that the state supported them because it is a popular activity and, as explained by Ecobarrio

Patrimonial Yungay, "*no one is going to oppose if a mayor wants to make an allotment, they all are going to applaud*" because it was considered a politically correct project that attracted people. Indeed, Huerto Comunitario Pu Pichikeche perceived that the state had a sustainable policy mediated by marketing, which resulted in many municipalities making allotments because it was a popular activity. However, many UAPs preferred to stay away from them because they believed that politicians would "*add the names and begin to take advantage and occupy your project in their political campaign*" (CS11). Groups perceived a lack of public policies to protect the environment and generate a comprehensive, articulated, and active action plan. They have difficulties trusting the state since the municipal and ministerial organisations formed to work in the environment were underfunded, undermanaged and insufficiently equipped. Indeed, the DIMAO (Directorate of Cleanliness, Ornament and Environment), the agency that works directly on the environment, green areas and sustainability in the municipalities, received less funding than the Directorates of Health and Education. UAPs are aware of the lack of funding, and they have heard that the mayor does not allocate more resources to the Directorate of Environment in most cases. For the groups, this reflected a state disinterest in areas that they campaigned and taught the community through workshops and events to raise awareness.

UAPs had a negative and sometimes pessimistic perception of the state that affected their connections and attitude. Huerto Comunitario Pu Pichikeche believed that the municipality's vision in most of its actions was to see "*how I manage with little money something that is super flashy and with more votes to continue occupying my position of power and, hopefully, continue to climb*". Indeed, some groups perceived the association of the private sector and the state with caution since the state has allowed the development of projects in protected areas to the detriment of the environment but beneficial to generate wealth, following a neoliberal logic that the groups refused to accept. For C17, the state showed an idea of sustainability awareness very similar to the private sector. It was not acted for the environment, but the positive image that sustainable actions generated. Otherwise, they would pass strong legislation to curb the pollution produced by the private sector. However, there were no changes since the large corporations were closely associated with the state, deputies, senators, and ministers. This association increased the distrust of the groups who believe in

preserving the environment and using an alternative economic system, making them less interested in forming connections. After all, UAPs noted that while they try to educate people in recycling and showing alternatives to protect the environment with the help of social and environmental organisations, the state insists on low-impact sustainable actions without information or explications to the community and with limited interest in sustainability (CS28).

6.4 Chapter Conclusions

This chapter identified the main discourses formed by UAPs about knowledge and sustainable awareness. This chapter's main argument is that UAPs are spaces that produce and circulate knowledge and experiences about different topics between their social networks. Findings in the first part of this chapter explain how urban agriculture accumulates knowledge and its educational impacts. The first finding of this chapter is that allotments are considered sources of knowledge and social connections rather than producers of vegetables for food security in Santiago. Groups recognised that their primary motivation in the allotments is to educate the members and the community on topics necessary to preserve the environment and the people's quality of life. They recognised a void in the state's sustainable education and worked to inform people about current social and environmental concerns to create an empowered community. The social relationships formed by the groups and members are essential for forming, developing, and sharing knowledge since they connect experiences and expertise from groups of different ages, professions, backgrounds, and cultures. As shown in Chapter 5, UAPs form connections with actors interested in various topics, and therefore, they are not limited to teaching allotment or food subjects. Indeed, the use of food in the workshops focuses on making people aware of food justice and sovereignty problems. The second finding of this chapter is the recognition of indigenous communities and rural communities. Groups understand the connection of Chilean society with their indigenous and rural communities and history. Despite the modernity of society, Chile still has an indigenous and rural past and presents with knowledge maintained and improved through centuries. People in the cities have formed a common knowledge about urban agriculture, natural medicine and life from historical knowledge transmitted orally and empirically from indigenous

and rural communities. UAPs are capturing experiences and expertise that have been accumulated and are trying to maintain them in the urban areas. For them, their work involves a rescuing of wisdom that has been ignored by modern life and the use of more scientific and modern techniques and cosmovision.

Findings in the second part of the chapter explain the perceptions of UAPs on the environmental awareness of civil society, the private sector and the state. The third finding is that UAPs have different perceptions and attitudes regarding the actors defined by their environmental actions and awareness. UAPs perceived that civil society was a key actor for their allotments and integrating into their networks, increasing their involvement in environmental themes. However, due to the state's limited or inadequate sustainable education, people have not changed their habits because they do not understand the relevance of their actions or are not interested in the topic. Thus, UAPs perceive their role as essential to reaching the community provided with environmental education through workshops and events. The fourth finding is that UAPs consider that urban agriculture is a popular topic for the state and the private sector to support but distrust the reasons for their involvement. Groups feel that they are approached not for their work in the allotments and the community but for the association's revenues that could be generated. That is why most connections are generated with local small businesses that know the territory and understand the neighbourhoods rather than with large companies with different values regarding nature. Similarly, UAPs perceive with distrust the association with the state, finding their environmental concern insufficient and delayed. Therefore, groups are very cautious in their associations. The final finding is that UAPs have a clear ideological motivation underpinning their work and see it as a way of opposing capitalism. They consider their work in the allotments as a threat to others who disagree with the empowerment of the community, the preservation of the environment and the education of the population. In their perspective of society, knowledge is not restricted by money but is given freely by an experienced population. Connections between actors are emphasised to include actors from different origins, socioeconomic levels, ages and experiences to improve the community's quality of life.

This chapter has explored the production and circulation of knowledge and environmental awareness. The next chapter will explore urban agriculture through the

perspective of governing the territory to explore how urban agriculture is framed in the territory by the Chilean legislation and state actors and the societal challenges that urban agriculture faces in the territory.

Chapter 7. Understanding Urban Agriculture through Governing the Territory

> "*All public space can be cultivable; all public space can be worked*" (Huerto Comunitario La Berenjena)

7.1 Introduction

This chapter continues to provide explanatory elements to the sub-questions 'What are the main social discourses and storylines co-produced by the actors involved in urban agriculture and their relationship with neoliberalism?' and 'How have networks and discourses related to neoliberalism and environment co-evolved with the emergence of urban agriculture projects in Santiago?'. Specifically, it provides a more specific answer to the questions: What is urban agriculture's position within the Chilean legislation, and what are the persistent social challenges in the territory that urban agriculture addresses. After exploring urban agriculture's approach to the production and co-production of knowledge and perceptions of actors' sustainability awareness, this chapter focuses on the discourses about territory and societal challenges. Urban agriculture is established in specific spaces, defined by social discourses and structured by specific rules. These characteristics allow the use of the concept of territory to understand urban agriculture's position from two points of view: from a political and jurisdictional level and a discursive level. Both perspectives help in the construction of a space to which people belong. Territory refers to a geographic location and all the connections, meanings, spaces, and power strategies produced and affected by the territory's social construction. The relevance of the concept is that "territory should be understood in terms of the social relations that produce territory and are affected by territory" (Strandburg et al., 2017, p.2). The territory is a concept that gives "spatial and material expression to a wide range of social relations which are themselves instantiated through a range of socially significant (or even trivial) practices and projects. What makes these relations and practices' territorial' is their

involvement with the dynamic interplay of power, meaning, and bounded space" (Delaney, 2009, p.197). Power is often explained as the ability to act or impose one's will against the will of others, as explained in Chapter 3. Power is relational. It can be expressed as 'power to' to act and produce outcomes and 'power over' as forms of domination that will be present in them to act. Meaning refers to discourses and ideologies, thoughts and feelings and how these are expressed through discourses. Discourses, under territory, can be considered conventional or institutionalised forms of thoughts, the categories through which thoughts occur and determine the limits, in any given context, of what can be thought or what is acceptable thinking (Delaney, 2009). Space is approached as social space, where "the spatial and the social are understood as inextricably bound to each other" (Delaney, 2009, p.199). In this case, it can be social formation, social relations and social life.

The chapter is structured in two main sections covering urban agriculture's position under a different understanding of the territory. It presents an analysis of the political and jurisdictional formation of actors in the territory, focusing on green areas. It covers the different connections established between actors at different levels that impact the conception of the territory. The first section focuses on the state's planning and the municipal-level organisation that oversees green areas and the environment. It explains the social and economic complications the networks face using the territory for those actors related to green areas and urban agriculture. The second section analyses the main discourses produced and reproduced around the space, one of the elements that conform to the territory. It refers to discourses and story-lines mentioned by the different actors and the problems and challenges with the space's use. Articulating the findings displayed in this chapter, I propose that UAPs want to improve the community's perception of space, changing its meaning and connecting people to the territory despite social challenges.

7.2 Governing the territory: green spaces and urban agriculture

In this section, I analyse the political and network setting where urban agriculture is located. Because urban agriculture is seldom mentioned in the Chilean literature and almost non-existent in the legislation, green areas will be used as the closest concept that can provide a clear picture of the context where urban agriculture is located.

Therefore, this section will provide a better understanding of the policies about green areas, the connections between decision-makers, and the complications of using public space and green areas concepts to appreciate the causes of the different problems mentioned in the previous chapters. In their narrative, interviewees recognised urban agriculture's problems due to complicated relationships with state actors due to space use. The emphasis here is on comprehending the framework where urban agriculture is located and understanding the territorial and social complexities that the activity faces as a green area, even if not recognised as such in the Chilean legislation.

7.2.1 Power in the Territory

One way to understand the networks between the actors involved in the green areas decision-making and planning was by analysing their power relationships. As mentioned in Chapter 3, power should not be neglected in network analysis because it reveals political connections, and particular actors could use it in the decision-making process. In Chile, social connections between actors are highly influenced by the economic system that is deeply integrated into society and has modified relations between actors through a preference of the private sector over civil society (S3), which as a result, directly affected the city planning. The expert interviewed explained that the neoliberal model deregulated all the planning rules because "*it is assumed that the development model is public-private and it is not up to the citizens to participate in it either*". Under this logic, municipalities were considered only economic administrators of territorial units favouring investment and not municipal governments as in other countries. One of the main examples of the model's intervention was outsourcing most public services to the private sector, which increased the networks of both groups of actors and made the municipality dependent on others to carry out its activities. E3 explained that all the activities that should be the responsibility of the state were outsourced. Most municipalities concessioned the management of services and departments to external corporations, especially education, health, green areas and waste. Huertos Urbanos La Reina mentioned that:

> *the municipality does not oversee green areas. The municipality gives them to the companies that tendered. They oversee the green areas of the municipality, not the*

municipality. The municipality does not oversee the cleaning either because cleaning is also tendered. The Directorate of Cleanliness and Ornament is rather the one that coordinates all these operations of the different tenders.

Some municipalities interviewed explained that most of the green areas' management were tendered to external companies, and they only kept a low number of workers and funding. For Huertos Urbanos La Reina, this outsourcing of responsibilities meant that municipalities delegated to corporations of private rights subsidies for the work; corporations generated resources by renting infrastructures such as courts, sports centres and pools; and the workers of the corporations became external and were not part of the municipalities. Some groups questioned this situation because, although the municipalities supervised the companies' work, the work was not managed by the municipality, and the population had even less participation in the decisions related to green areas.

The participation of municipalities in real estate speculation was another example of the exercise of power among the actors caused by neoliberalism. E3 explained that in Chile, "*what is privileged is the use of individual land",* resulting in the market speculation to build tall buildings and generate more economic assets. The economic model affected planning and urban planning levels, where land was considered a good that would be regulated by supply and demand. The expert explained that this change in the land's perception began during the dictatorship when the national development policy published the cities' regulations and led to urban expansion (See Chapter 2, Section 2.3). As a result, now "*municipalities partially encourage that predominance of the speculative land use, then all those topics are affecting the chance of developing urban allotments or collective community experiences*" (E3). The private sector was willing to contact the municipalities to negotiate for their benefit, despite the neighbours' opposition in many projects, as mentioned by Huerto Comunitario La Berenjena. Indeed, the Municipality of Macul mentioned that the previous mayor modified the regulatory plan to construct tall towers and increase the municipality's density. They went from having single-storey single-family houses to seven apartment towers of 20 floors each, affecting the quantity and quality of the green areas per person. They were still trying to work to increase the number. The private sector uses their networks with the state and their advantaged position to influence the decisions of others, be it in the municipalities due to the change in the land use and the

restrictions in the regulatory plan or creating a discourse of responsibility to appear trustworthy to the community. Specifically, in the green areas, E3 perceived that the private sector's most significant impact was its perception of green areas and urban nature as consumer goods to add value to their projects because they realised that people want to buy the idea of living almost in a park. In their new projects, they were not just selling a house. They were selling an idea of a neighbourhood crossing the border of the house's fence to the outside, connecting the spaces. Municipalities acted as facilitators by changing land use to benefit the private sector's expansion and selling green space ideas to civil society, breaking the community's connection and reducing their position in power relations below that of the private sector.

7.2.2   Planning and Organization in Green Areas

Experts saw a change in state focus in recent years. E1 mentioned that public institutions began to care a little more about the city because they had already managed to satisfy the quantitative demand for housing. That change in perception meant for the experts that the Ministry was finally working on its whole identity as the Ministry of Housing and Urban Planning. After all, "*for decades they were concerned only with housing, so now they are going to worry about urban planning and the city, of building cities*". For E3, this change was reflected in the promotion of urban renewal and the creation of more metro lines to activate the municipalities' economy and investment. However, the expert did not perceive urban agriculture as a productive space to benefit the municipality. For them, there was a dissociation because there were municipalities that adhered to the topic of sustainability and territorial identity but did not support urban agriculture, even though "*we could reread that this is a form of planning*" because the institutions "*could learn a lot from how these networks are generated, these local micro-networks*". For E3, *"we must not see planning as only the institutional planning, but there is also emerging planning, in what people do over time, the way of managing, of building relationships, of generating alliances*". E3 mentioned that Chile began to install participation after the dictatorship through ordinances of citizens participation in the municipalities (See Chapter 2 for the restrictions on participation during the dictatorship). However, the ordinances lacked a comprehensive view of participation because they did not have much influence. There were no integrated planning policies with the community. For the expert:

it is not enough to understand participation as in institutional terms but also as the capacity. There is a power in citizens to participate and to mobilise concerning their territory, and in Chile, what has advanced is the topic of participation at the urban level in conflict rather than the issue of institutionality. (E3)

And that idea was understood by UAPs when they noticed that "*when you make community, you empower people*" (CS8). An example of community influence was noted in Peñalolén. The municipality began to cover environmental issues based on citizens consultations through community consultations. Every time they had consultations, they asked about the topics that the community would like the municipality to work on. At first, they asked about parks, waste, recycling, veterinary care, but later, the issues evolved, and now environmental education began to gain a relevant role in community requests (S5).

According to the experts, the state addressed green areas and space differently during the years. E1 perceived a change in the civil society's demands that went from housing to urbanism and then to the right to the city, which caused a greater demand for public policies on issues related to the city. E2 mentioned that in the early 1990s, the main discourse was on brown areas and their transformation to green areas to better life quality. In 2000, the social perception of security started to include discourses of recovery of vacant lots to reduce crime and insecurity, "*so those projects that in the 1990s had a lot of vegetation, now are very particular, because it predominates the paved areas and trees, just trees, no shrubs or low plants that could generate insecurity*" (E2). Today, the vegetation structure remains, but playgrounds and exercise machines were added, so now the spaces are overloaded. E1 mentioned that spaces were also poorly equipped to generate community. Many neighbourhoods "*have poor infrastructure and public spaces; there are no spaces that favour social integration or have access to interact with nature*". E2 explained that many public spaces were destined for other uses and not green areas, especially for roads and many times, parts of the parks were taken for road connections. In 2018 there was even a referendum in Municipalities of La Reina and Las Condes to decide to continue a project to use part of a public park for swimming pools and recreational areas under private concession. In the end, the community rejected this. According to S2, the groups that recovered green areas in Santiago were few. They mentioned that in the 1990s, there were more because the topic of green areas was more relevant then. E2 explained that there were no organised groups that preserved the urban green areas,

but there were groups for urban agriculture with protocols and actions to preserve their spaces.

Despite the community's change in the treatment of the green areas, that interest did not transfer to the municipalities' structural organisation, which are complex and dispersed. Most municipalities have departments, directorates or corporations overseeing environment and green areas; however, the organisation and participation differ, reflecting how they respond to citizens' needs concerning sustainability and green areas. I will analyse the municipalities of La Reina, Macul, Peñalolén, Recoleta and Santiago (Table 5), which are the ones I interviewed and, also, the municipalities where 11 of the groups were located.

Table 5. Municipalities environmental and green areas organisational structures

Municipalities	Structures that oversaw green areas and the environment	N° of workers	Budget	Activities	Municipal Environmental Certification[27]	Mayor's Contribution
La Reina	Directorate of Cleanliness and Ornament (Unit of Parks and Allotments); Corporation Aldea del Encuentro (Huertas Urbanas La Reina); Planning Secretary (Unit of Environment*)	1	None	Planning Secretary is where projects and programmes are made and overseen, such as improvements of the streets and parks. They design and tender the contracts to be executed by other units.	Excellence (2013)	Initiated sustainable actions in the municipality
Macul	Directorate of Environment, Cleanliness, Ornament and Sustainability	15	None, they use materials and workers from other units: Emergency and Operations.	Directorate works on domiciliary waste recycling and recovering of vacant lots by using dry vegetation.	Basic (2018)	Created the DIMAOS and environmental activities
Peñalolén	Directorate of Operations (Department of Cleanliness and Department of Ornaments); and Directorate of Environment (Communal Parks, Environmental Projects* and Environmental Education)	20 (Directorate of Environment)	Low	Environmental policy of the municipality is based on six strategic points: comprehensive waste management, public space management, energy and water efficiency, responsible pet ownership, environmental education and climatic change.	Outstanding (2017)	Interested in sustainability.
Recoleta	Directorate of Environment, Cleanliness and Ornament (Viventerio); Department of Health* (Viventerio)	Team, the number was not mentioned	From Directorate of Cleanliness and Ornaments and	Directorate of Environment focuses on cleanliness and ornament. Viventerio focuses on creating and visiting allotments in different	Excellence (2016)	Interested in sustainability activities.

---

[27] This certification is promoted by the Ministry of Environment. It is voluntary and allows municipalities to install environmental management models in their communes. It requires municipalities and citizen organizations with technical knowledge to participate together in the territory's environmental management. As the municipalities meet the certification requirements, they obtain Basic, Excellence and Outstanding according to their achievements. There are currently 172 municipalities certified. Due to certificate obligations, municipalities are required to open spaces for the community and open dialogues with the private sector.

Municipalities	Structures that oversaw green areas and the environment	N° of workers	Budget	Activities	Municipal Environmental Certification[27]	Mayor's Contribution
				Directorate of Health municipality neighbourhoods and managing organic waste to produce humus.		
Santiago	Directorate of Cleanliness, (Sub Directorate of Ornament, Parks and Allotments, and Sub Directorate of Environment*)	15	Not mentioned	Directorate of Environment has the Centro of Education, promoting sustainability activities, urban allotment, composting and workshops.	Excellence (2013)	He has never visited the Eco-educational Centre

(*) It corresponds to the structure interviewed.

The position of green areas in the municipalities' structural organisation was complex. They did not have a Directorate working exclusively on green areas and were usually included with other topics. The name and the functions of each directorate were not homogenous and differed in each municipality. Additional to this situation, in 2010, the government decided that municipalities with more than 100.000 inhabitants should change or add 'Environment' to the name of the directorate that oversaw environmental themes, increasing the complexity in the names and responsibilities. In most municipalities, allotments and parks were part of Cleanliness and Ornament, and urban agriculture was generally part of the environment. However, in other cases, both areas were part of one directorate. Of the interviewed municipalities, just La Reina did not transition to adopt the environment into their department since their population was lower than that suggested by the law; therefore, it was not mandatory to separate the directorates, and it worked under an older structure. The Municipality of Macul was one of the few municipalities that did not change until 2017 due to the mayor's disinterest despite complying with the requirements. Like La Reina, the delay caused the department to work under an old structure that did not adopt sustainable and environmental activities. The Municipality of Peñalolén was the only one with a department working exclusively for the environment. The interviewee explained that they did these changes:

> *to give them more hierarchical power in the environmental thematic inside the commune and to detach them from the everyday work that every department has because Cleanliness and Ornament have many contingencies, waste, debris, reparations and that take a lot of time and resources, so it was decided to separate them.*

The interviewee explained that they adopted this strategy as survival because, in general, the municipalities have a Department of Environment with just one person working on the department or sharing functions with other structures; instead, they have a team that works in different areas.

The directorates or department's names' relevance meant that more responsibilities were included with the changes, but that did not always imply an increase in the number of workers or budget, which resulted in underdeveloped departments, overworked personnel and delays in activities. The Municipality of Macul clearly explained its situation:

> *in terms of budget, we are a municipality that we are super precarious in resources. For our environmental management unit, the budget that we have is zero. We do not have an assigned budget. Therefore, all the management we do is that it is management. Through taking out other accounts that are assigned to cleaning and decoration,* [and] *donations from private companies, we have a lot of collaborative work with private businesses.*

Sometimes they receive specific projects financed by the Ministry of Environment that could not be relocated for other purposes. These financial constraints limited their involvement in environmental activities, despite the growing demand. To remedy the complications, some municipalities worked in alliance with other departments to compensate for the disadvantages. Most of the time, these alliances between departments or directorates to work on similar issues or transfer funds were impossible since most of the activities and funding were transferred to companies due to the services' externalisation. The Municipality of Recoleta, the only municipality interviewed who actively worked in urban agriculture and included it in their departments, used a multisectoral approach to manage their allotment. The urban agriculture programme that includes Viventerio, a municipality UAP located inside the General Cemetery, was under two Directorates' supervision. The interviewee explained that the programme began with the Directorate of Environment, Cleanliness and Ornament to recover municipal green areas. However, later the responsibilities were transferred to the Department of Health because the health centres began to create medicinal allotments. However, the municipality noted that it was necessary for the programme's success to have the allotments under both departments because they used a multisectoral approach to explore the reality of the allotments under both perspectives. The interviewee mentioned that this approach helped them because the Department of Health cannot buy products such as wood or soil, which the Department of Environment can, so they function as a team due to their work.

The Ministry of Environment promoted the Environmental Certificates to promote environmental management models in the municipalities to increase environmental awareness. The municipality that received a 'Basic' certification, the Municipality of Macul, was because they just started in its sustainability activities due to its recent organised Directorate of Environment, focusing on creating allotments, recycling and environmental education. The municipalities that received a higher certification 'Excellence' were La Reina, Recoleta, and Santiago. The Municipality of La Reina had Corporation Aldea del Encuentro, promoting awareness through urban allotments and

workshops. The Municipality of Recoleta, through Vivenerio, worked on a community family health model where patients from the mental health programme had appointments in the allotment instead of the health centre and received workshops about traditional and alternative medicine. The Municipality of Santiago worked in different areas. They taught various sustainable topics at the Education Centre, produced compost for the community, and worked in urban agriculture. The directorate worked with urban agriculture in schools and kindergartens and the Health Centres to implement medicinal allotments. The highest certification 'Outstanding' was received by the Municipality of Peñalolén, which plans all their all projects, programmes and activities with an environmental concern; and has an environmental and research centre called *Ecoparque* (Ecopark), which was financed by private companies, where they educate the population and supervise the treatment of organic waste. Despite the lack of funding, municipalities could work on environmental programs by working between departments or alliances with the private sector.

A common point between the municipalities was the mayor's involvement in the municipality work on the environment. Most declared a good relationship with their mayor and emphasised that their vision helped develop the departments towards a more sustainable action plan. However, there were still some that were disinterested or not involved directly. La Reina's municipality mentioned that their mayor initiated the most sustainable actions in the municipality. His architecture background and interest helped him promote sustainable urban planning because he saw the different thematic connected and not separated. The interviewee from the Municipality of Peñalolén explained that for years they had mayors from the same political party who understood the municipality's environmental themes, which allowed continuity in their work and did not affect their management. The Municipality of Macul was an example of and disinterested administration. After 24 years under the same mayor, who did not promote sustainability or territorial planning, they had a new mayor in 2016 who included the environment as a priority topic for their management, emphasising sustainable waste management and sustainable policies. Indeed, the new administration's first symbolic act was creating the Directorate of Environment, Cleanliness, Ornament and Sustainability. The interviewee from the Municipality of Santiago was the only one who did not mention a relationship with their mayor. They even explained that he has never visited the Education Centre (the main sustainable

education building of the municipality) or other allotments. They explained that the neighbours had to force the mayor to visit a neighbourhood allotment when he was visiting the area because he did not want to go. The interviewee explained that sustainability activities were still working despite the apparent disinterest due to the department's organisation and interest to continue with the practices. An involved mayor could develop ideas for the departments to work and position the environment as the municipalities' primary goal, as in La Reina and Peñalolén. However, after the core has been established and the department runs smoothly, mayoral support is less relevant since the department can continue working on plans and programmes that last longer than the mayors' administrations, as in Peñalolén and Santiago. Despite increasing awareness and planning ideas to improve the environment, municipalities showed a disconnection between plan and actions. They were interested in increasing their projects, but they lacked funding to develop their ideas due to the limited assignation given to the departments working on environment and sustainability. Their organisational structure was sometimes too diverse to focus on the environment; they usually worked on waste management, risks control, green areas, planning, and cleaning. The community and UAPs perceived that disconnection when asked for funding or technical support for their activities.

7.2.3   Green Areas and Public Space

UAPs perceived a conflict between the discourses of the private sector and the state about green areas. What green areas were for UAPs, how the state talked about it and how they were defined in the legislation were completely different and presented a problem for developing green areas and urban agriculture.

The legal definition of green areas described in Chapter 2, the one used by the different actors as the basis for their projects and programmes, is vague and obsolete for current times according to experts because "*green areas in Chile does not explicitly involve vegetation, and of course, it brings a lot of consequences*" (E1). E2 explained that it was not clear that it must be mainly green in the land, and they said that on the same General Ordinance that defined the concept, just 'parks' were described as mainly green. This contradicted what the scholar perceived because for them, "*people understand that green areas are mainly green, the only one that does not understand*

it is the Ministry of Housing" (E2). In many cases, the Ministry proposed squares and green areas but ultimately delivered grey areas with concrete that meet the definition. The problem is that the different meanings of green areas affected how projects were implemented in the cities and opened room for interpretations. In the case of municipality projects, E2 mentioned that even though many cities had Regulatory Plans with definitions of green areas, the only valid for legal purposes was the General Ordinance's definition adapted to each initiative of the cities which does not specify the type of vegetation, density or coverage. For example, S1 mentioned that when they developed green areas in vacant lots with irrigation problems, they used dry designs without vegetation. According to the legislation, these are green areas since they comply with circulation and recreation. According to E1, the government did not consider the benefits of biodiversity, microclimatic regulation, and hydrological cycles. It only considered recreation and contribution to aesthetic quality, which the definition emphasised but which is not up to date with the new concepts of ecosystem services of the green areas.

The definition of green areas could be interpreted according to the needs of the actors. The private sector working in urban projects is obligated to create green areas on the plots as compensation by law. Due to the unclear definition, companies created what was mentioned in the Ordinance, an area intended for recreation and circulation. However, because no longer specifications were mentioned, they generally provided random green patches on discarded land and rarely a large green area with trees and greenery. Then they added more elements that "*could be a multipurpose court of concrete, or it could be a median strip without vegetation, without any type*" (E1). For the experts, the biggest problem was that there were no specifications, "*there is no minimum, no form or anything*", and the interpretation was left to the companies. This inconsistency between the main definition and reality was apparent in the territory. E1 explained that:

> *you can find that people have neighbourhoods with nothing green, but then you go to the Territorial Planning Instrument, either the Communal Regulatory Plan or the Santiago Metropolitan Regulatory Plan, and you find that there are polygons painted green that say green areas, it says that are implemented, but you go to the place, and there is nothing green, there is a multipurpose court.*

As explained by E1, the construction of multipurpose courts or hard parks complies with the legal definition of green areas, but they do not incorporate vegetation, which is the classical association made with green areas in urban or rural areas. The separation between what the law defined and what it was implemented was clear.

The limited definition of green areas restricted the inclusion of elements that were not described or covered by definition, such as urban agriculture. Huerto Urban Yungay mentioned that "*there are though isolated plans to generate allotments, but it is not an environmental policy; in general, municipalities have plans for allotments and are different from each other, but not* [plans] *at the state level*". Urban agriculture was not included as an official discourse from the state. The omission in the legislation or the public discourses meant less recognition at the state level. For different actors, this problem was accentuated by the legal definition of green areas, the closest concept covering urban agriculture. Huertas Urbanas La Reina mentioned that because the definition was old and has not been updated, it only mentions ornamental species and transit and omitted edible species or medicinal allotments, where urban agriculture could be an option. E2 was invited to work on a new definition with experts and governments divisions, but after years of work, the Ministry of Housing rejected the proposed definition elaborated by the experts. E1 mentioned that the Regional Policy of Green Areas of the Metropolitan Region tried to define green areas related to the social and environmental functions provided, forming a complete and detailed definition, but one that has not the legal power to be used.

Another problem with definitions was the use of public space instead of green areas in discourses and communication. E1 and E2 mentioned that architects and urban planners often alternate using green areas with public space. Even the Ministry of Housing adopted the term in documents. E1 mentioned that *"there are manuals of public space for the design of public space, construction of public spaces,* [and] *units of public space from the regional government, from SEREMI of housing, from MINVU, from SERVIU*". In comparison, the number of manuals addressing green areas is smaller than for public space. For the experts, the problem was that a public space could be a space that did not necessarily have vegetation. It could be a street or a hard park. E2 also referred to the same idea of blending definitions. They said that the architects used the Spanish meaning of squares, a "*paved space without vegetation*

such as the Spanish squares, but here, squares for people and organisations are a mini-park". The expert preferred to avoid the words' green area' because it included football fields and main strips. They preferred to say mini-park for squares because to speak of parks was to say that it was mainly vegetation. The problem with using public space instead of green areas was that it ignored the idea of vegetation that green implied. When discourses started to omit that, it allowed elements with no vegetation that could be considered green.

Use of Public Space

Along with a conflictual definition of green areas, urban agriculture and public space, there was also a complicated relationship with the space concept that involved the groups. For Huerto Comunitario La Berenjena, in society, *"there is not a very clear idea about the public, because what is public in reality is private, so that idea of a dispute is permanent, and all spaces are usable from that idea"*, because according to the interviewee in practice, "*all public space can be cultivable; all public space can be worked*". From there, another constant conflict with space arose in urban agriculture caused by land ownership. More than half of the allotments (58%) are located on municipality-owned land, almost a third (26%) are located on private property, and the rest at universities (26%)—all of them under different land use agreements

There are six types of agreements that the UAPs obtained to use the space for urban agriculture (Figure 13). The most common is Loan for Use, which consists of a legal contract that allows the use of the space for a determined period under certain conditions. Some of the groups explained that their contracts have unclear conditions, are verbal and the time is not mentioned, which place them in an uncertain position (Huerto Libertad, Huerto Comunitario Mapu Wangulen, Huerto Comunitario Pu Pichikeche, Biohuerto, Huerto Urbano Yungay, Fundación Mingako). The second refers to Land Appropriation, which has no formal agreement since UAPs started their activities on land without the authorities' permission. Most groups mentioned conflicts with the municipality or universities at some point (Huerto Popular Observatorio al Sur, Huerta Comunitaria Las Campanas, Huerto Comunitario La Berenjena, Huerta Vecinas Antu Newen and Huerto Comunitario FAU). The third corresponded to the groups that owned the land where the allotments are located (Colectivo Sustento,

Herbarium, Huerto San Francisco). The fourth type corresponds to UAPs on municipality properties, such as Neighbourhood Councils or Cemetery (Ecobarrio Patrimonial Yungay, Ecobarrio Villa Santa Elena and Viventerio). One of UAP is under a Sharecropping (*mediería*) agreement. The group and the municipality agreed on this term because it was the only one that could allow them to have an allotment at the time of the agreement 12 years ago (Huertas Urbanas La Reina). The last is Joint Ownership, which refers to an allotment located in a public communal private property area where all the inhabitants own the common spaces (Huertablock).
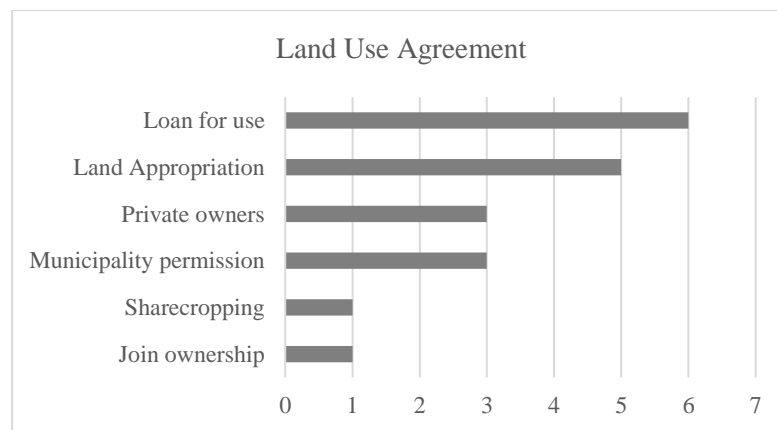
Figure 13. Ownership situation of the land used by the UAP.

UAPs located in public spaces or abandoned areas faced constant conflicts with the authorities. Groups see easy and accessible opportunities to develop their activities in those spaces, but those are not intended to be used for urban agriculture or other types of activity without proper authorisation. Despite the good intentions of the groups in recovering or improving the land, it is still up to the municipality to decide if the activities are allowed or forbidden. Huerta Urbana Yungay mentioned that several allotments had problems with the municipality, which resulted in their removal from public spaces. While some groups suffered the destruction of their allotments, others, such as Huerto Comunitario Pu Pichikeche and Huerto Comunitario Mapu Wangulen, lived in fear that their agreement with the municipalities could be broken at any moment. CS9 mentioned that "*there is a tremendous emotional charge when long-term work is liable to be destroyed*". For the interviewee, the use of the public spaces is because they consider a need for spaces for people to organise.

The recognition of urban agriculture in the legislation as a green area and an acceptable activity for public spaces could motivate the private sector or the municipality to allow

UAPs to use vacant lots. Several groups have encountered problems with the municipalities that, in some cases, have ended in the destruction of the allotments or the continuation only due to the neighbours' intervention. Huerto Libertad mentioned that allotments did not belong just to the groups "*they belong to all the neighbours and whoever wants to work it*" because it was in a public space. However, especially on appropriated land, the land use has been determined by the groups and not the community, which could explain the conflictive views of what space should be used since different communities have different and conflictive aspirations for the public space in this case. The aims of the groups associated with urban agriculture should not take precedent over any other.

UAPs observed a doubtful attitude in the people that approached the allotments for the first time. In the case of those surrounded by fences, people ask for permission before entering or using the space, which is an attitude that the groups want to change, so people feel empowered in the space. A reason for this behaviour could be that people from outside the groups do not feel the space is theirs as they had no agency in putting the allotments there in the first place and did not have any agency in its running even if the groups wanted otherwise. Another reason could be the physical fence that some groups have installed to protect the allotments from stray dogs. Huertablock noted that with the fence up, the allotment became a new protected space "*even the police when they have come to check around and enter to this site, stay there* [outside the fence] *and ask for permission to enter, it is a different zone"*. UAPs observed that the space took another connotation with that extra protection element, even if small and easy to disassemble.

Municipalities discourses about green areas in the policy documentation

Green areas were barely defined in the municipality policy documentation. At the municipal level, three main documents addressed green areas: Communal Regulatory Plan, which defined and described the land use and equipment permitted in the zones; Communal Development Plan, which described the actions taken by the municipality with different problematic issues, the main problems perceived by the community and the programmes developed to solve them; and Ordinances, which defined the maintenance and responsibility of the green areas. Those documents (Table 6)

provided basic information on green areas. However, not all documents were present in each municipality. Some were very old, others were very vague in their description, and only one mentioned urban agriculture.

In general, most Communal Regulatory Plans described a type of land use as Green Areas and explained the type of equipment allowed in the area. Most municipalities described green areas as squares and parks with different equipment. All municipalities allowed the use of the space for recreational, cultural, commerce, worship and sports activities and, therefore, allowed the installation of urban equipment, such as playgrounds, kiosks, fountains, pergolas, and others. The Municipality of Peñalolén explained that the use of complementary equipment was allowed to make the projects more attractive and ensure the creation of green areas due to the high cost of maintenance and the use of spaces to prevent their transformation into landfills or empty lots[28]. The Municipality of Recoleta in the Communal Development Plan provided a deeper explanation of its objectives with the green areas. They explained that the problem in creating more green areas was the lack of available land and the costs of implementation, for that reason, "the Directorate of Environment, Cleanliness and Ornament (DIMAO) have worked on generation awareness on the population about the relevance of the environment, their care and protection"[29]. For the municipality, "a public space must-have elements that allow it to remain, with lighting, equipment in good condition (seats, garbage cans, children's games, exercise machines, others) and an environment that incorporates it within its urban fabric"[30].

---

[28] Actualización Plan Regulador Comunal de Peñalolén Memoria Proyecto 2009
[29] Actualización Plan de Desarrollo Comunal Recoleta 2015-2018 Tomo 1 (2014)
[30] Actualización Plan de Desarrollo Comunal Recoleta 2015-2018 Tomo 1 (2014)

Table 6. Municipality Policy Documentation

Municipalities	Documents/Ordinances	Description
La Reina	Communal Regulatory Plan (2001, modified 2010)	It defines green areas as parks, squares (communal scale) and park with games for children (neighbourhood scale)
	Communal Development Plan 2014–2018 (2014)	It describes that the commune has green areas, but they have little maintenance and poor care.
Macul	Communal Regulatory Plan (2004)	It describes green areas as parks, squares and free areas destined for a green area of public, municipal or private domain. Some constructions for public use will be allowed.
	Communal Development Plan 2015–2018 (2014)	It describes the population's concern about the lack of management of the green areas and de programmes developed by the municipality.
	Ordinance 352 (1985)	Department of Cleanliness manages the design, creation and supervision of green areas. It is forbidden for neighbours to plant or replant without authorisation. It is forbidden to use parks or squares in any way other than the intended for public passage.
Peñalolén	Communal Regulatory Plan (1989, modified 2018)	It defines green areas as parks, squares and areas that are not National Goods of Public Use; and public space as pathways, parks, squares and green areas that are National Goods of Public Use. Different types of equipment are permitted to increase the creation and use of green areas.
	Communal Development Plan 2013–2016 (2013)	It describes the insufficient number of green areas in the municipality as a problem and programmes developed to increase them.
Recoleta	Communal Development Plan 2015–2018 (2014)	It mentions the use of inter-communal, communal and neighbourhood equipment for green areas and sports, worship, culture, leisure and outdoor tourism as complementary uses to the main green area. Community Allotments are mentioned as part of the objective of the municipality
Santiago	Ordinance N°78 (1998, modified 2002)	Any activity or occupation in green areas needs the authorisation of the Directorate of Ornament, Parks and Allotments.

The municipality of Recoleta was also the only one describing urban agriculture. They referred to them as community allotments, and, within their plan, they proposed having a community allotment to help community groups and organisations maintain that allotment. They considered urban agriculture a vehicle to reduce crime, providing a natural and safe space for recreational activities[31]. Municipalities offered a general list in their Plans about the permitted activities, occupations and equipment, stating that anything not mentioned in the list was forbidden. For urban agriculture, this vagueness

---

[31] Actualización Plan de Desarrollo Comunal Recoleta 2015-2018 Tomo 2 (2014)

on the permitted and forbidden classification could be an opportunity since the included and prohibited activities were not a detailed list.

Some ordinances explained the administrative responsibility of the municipalities and neighbours with the green areas. The Municipality of Macul explained that it was the responsibility of the Department of Cleanliness to "design, build, conserve and manage green areas, by itself or by third parties with whom the service has been contracted"[32] and "encourage, advise and supervise the creation by the neighbours of green areas in the median strip of the avenues, streets and other public places"[33]. Regarding plant vegetable species in the public areas, the Ordinance mentioned that all planting or replanting are carried out by the Department of Cleanliness or by third parties, and residents are forbidden from doing so without the municipality's written authorisation[34]. Other relevant information was about parks and squares in Macul. The Ordinance mentioned that "it is forbidden to stop, transit or occupy in any way spaces not intended for public passage, located in squares and parks, such as meadows, median strip and allotments"[35]. It is also mentioned that "third parties will be penalised for causing any damage in parks or public squares or median strip sown or planted by individuals[36]". The Municipality of Santiago mentioned that it is necessary to request permission from the Directorate of Ornament, Parks and Gardens to do "any activity or transitory occupation with an objective other than that for which the squares, parks and other green areas were built"[37]. These ordinances provide a stricter use of green areas, which could complicate the establishment of urban agriculture. However, they also explain the conflictual situation between the municipality and UAPs and why several groups were asked to request permission from municipalities to continue (Huerta Comunitaria Las Campanas) or were removed from the parks.

The work of the Municipality of Recoleta became relevant when analysing Table 7. This shows that they had one of the highest densities and the lowest income per capita. Hence, the mayor promoted sustainability and urban agriculture as an essential part of their work and showed an alternative option in more impoverished locations. As

---

[32] Decreto 352, Capítulo 1, Art 1, a, 1985
[33] Decreto 352, Capítulo 1, Art 1, b, 1985
[34] Decreto 352, Capítulo 2, Art 10, 1985
[35] Decreto 352, Capítulo 4, Art 20, 1985
[36] Decreto 352, Capítulo 4, Art 22, 1985
[37] Ordinance 78, Art 2, 1998 (modified 2002)

location, density, income, political party, and profession were different. They did not seem to have a clear impact on the green area's development. However, from the different groups' responses, the mayor's involvement was the variable that had a higher impact on integrating the environment in the municipality plan. Many of them were creating new programs and plans and continuing the work of previous administrations.

Table 7. Socioeconomic information of the municipalities

Municipalities	Location	Social priority index	Density (inhab. /km²)	Monthly income per person (£)	Mayor's Political party and profession	UAPs
La Reina	East / Periphery	None	3,965.3	529.4	Right-wing (Architect)	Huertas Urbanas La Reina Huertas Vecinas Antu Newen Huertas Comunitarias Las Campanas
Macul	Central-East / Pericentral	Low	9,771.9	203.8	Indep (Engineer)	Biohuerto Huerto San Francisco Ecobarrio Villa Santa Elena
Peñalolé n	Mountain range (East) / Perophery	Low	4,457.5	236.7	Centre-Left (Lawyer)	Herbarium
Recoleta	North / Pericentral	Medium High	9,865.7	166.8	Left (Architect and Sociologist)	Viventerio
Santiago	Centre / Urban	Low	17,435. 1	486.9	Right-wing (Lawyer)	Ecobarrio Patrimonial Yungay Huerto Libertad Herto Comunitario FAU

Despite the partial inclusion of green areas in the lower level, some initiatives were generated at a higher level. According to E1, the National Policy of Urban Development (*Política Nacional de Desarrollo Urbano*) from 2014 started a discussion on the urgency of a new definition of green areas, and how to define standards for green areas, quantity, quality and shape, all specifications that, by the norm, were not yet defined. However, E1 and E2 mentioned that there were no norms or regulations derived from the policies. E3 believed that this National Policy solved the imbalance caused by prior planning because planning now was based on the challenges of the 21st century, the challenge of climatic change, resilience and social

integration. However, E2 believed that the Ministry of the Interior and Public Security had a specific idea of green areas because they associated green areas with security and crime. They granted funds through the Public Security division to municipalities to create green areas. However, the division and Ministry were not related to or worked with green areas.

E2 mentioned that the state tried to incorporate sustainability, associating it with green areas and public trees, but often in a very formal way. The expert mentioned the case of the plantation of exotic species in urban areas. On the one hand, they were adding more trees, which was good for the environment, but on the other hand, they were omitting all other sustainable aspects of the native vegetation. E1 perceived a change of awareness in the public sector, a paradigm shift and the consideration that green areas were essential for constructing sustainable cities. However, so far, it was not serious or had a relevant impact. This is because *"the institutions that build the city, MINVU, MOP and the real estate do not consider it"*. Experts perceived problems when explaining the idea of green infrastructure to actors because they had a classic understanding of green areas, so it was difficult for them to understand other concepts such as ecosystem services, spatially integrated systems, and multisectoral approaches. These conflicting ideas of green areas in ministries caused further complications when actors needed to manage projects and dealt with the private sector. Each actor had a different meaning for the same concept and used it for their own plans.

Urban agriculture, as reviewed in the different sections, was not integrated into Chilean legislation; some municipal ordinances framed them, but they were not legally valid. For CS13, there was a lack of policies to increase urban agriculture initiatives and educate people about their food. CS3 mentioned that during the nearly 12 years they worked in the allotment, they expected organisations or the government to elaborate public policies related to urban agriculture, "*in other countries you have public policies within the Ministry of Agriculture, within the Ministry of Social Development also, within the Ministry of Education, of Health, there are departments, directorates of urban agriculture that make this possible*", but according to them, that does not happen in Chile. They mentioned that there are many initiatives, but they have no support, and "*you cannot ask a person in social risk to go and buy a shovel to*

work because that person has to eat, they do not have money to buy a shovel" (CS2) and if the organisers also lack money, then the projects ends, the group recognised that "*there is a serious problem of public policies"*. CS3 mentioned, concerning the law on green areas, that because there was no legislation, the criteria for the permanence of allotments depended on the municipal inspector, "*if someone makes an allotment in the street and the inspector think that is a horror, they will fine them, but if the inspector considers it fun, nothing happens"*. They mentioned that if the municipality did not have an ordinance, people could use the lack of ordinances to make allotments because there was a gap in the legislation, and it was not prohibited.

7.3 Persistent Societal Challenges

In this section, I analyse the relevant extracts of the interviews and documents analysis that sustain the concept of space as a discourse produced in urban agriculture within the territory in a neoliberal system. I will address the community allotments' most relevant discourses that refer to green areas, places, and security. The connections that UAPs and actors could develop in the territory are challenged by situations that reveal some aspects of the territory. In this case, the main discourses are inequality, temporality and security, all of which refer to space and the actors using those spaces.

7.3.1   Inequality

Inequality caused problems in the formation of connections in the territory. It separates actors in their space, relationships and work. E1 mentioned that the academy unravelled problems of environmental and social justice that made people realise and wonder:

> *why the rich yes and the poor no, why in the poor neighbourhoods are located the treatment plans, the industries more pollutants and why here we have the Transantiago stops, why in the rich neighbourhoods the richest have less environmental problems, access to environmental amenities and we have much less access to environmental amenities.*

For the experts, those questions led the population of more marginalised areas to be more aware of social and environmental situations. The private sector usually increased the inequality in the territory with their practices, and the state did not have

the capacity or the interest of mitigating these "*environmental unfair conditions*". Indeed, UAPs have recognised the need to organise and fight for the improvement of their conditions.

Socioeconomic differences were not only observed in the population but also between the municipalities. According to E1, large urban spaces were usually located in municipalities that already had sufficient public and private green areas. Furthermore, the MINVU developed large parks specifically in those wealthy municipalities. For the experts, the problem was that poor municipalities did not have enough funds to develop their green areas and maintain parks because they had other priorities. People saw the differences when they moved across the municipalities. They wondered:

> *why in Providencia when I go there I walk in a city garden, and when I stay in my house in Cerro Navia I do not, and why there are so many vacant lots, why these places that are green areas according to the Communal Regulatory Plan are not, and normally these spaces are transformed landfills, and places of alcohol consumption.*

And as a result, some of them took the transformation of their cities into their hands. E1 mentioned that in the wealthier communities, "*they were always well provided with green spaces in their houses and their neighbourhoods, but they began to value them differently".* Due to their care for protecting nature in the cities, the wealthier communities began to fight to defend different green areas of the municipalities, but mainly from the personal interest of producing their food and a lifestyle more environmentally friendly and responsible with the environment.

Inequalities were perceived not only on the territory but also in the use given to space, which caused a separation between the population. Because Chile is one of the most segregated counties in Latin America (E3), the differences were also reflected in the urban allotments. According to Huertas Vecinas Antu Newen, poor people had allotments because they needed space and green areas, unlike the wealthiest people who already had extensive private and public gardens. The interviewee gave an example of the geographic and socioeconomic division between allotments. Huertas Vecinas Antu Newen and Huertas Urbanas La Reina belonged to the same municipality and were relatively close, at walking distance, only in different neighbourhoods. Huertas Vecinas Antu Newen explained that despite the proximity, the neighbours did not attend the Huertas Urbanas La Reina workshops because they

felt uncomfortable. Most of the visitors and workers were from wealthy areas. The group explained that people felt separated. Even though the place was for everyone in the municipality, they felt like the municipality was doing them a favour by allowing them to attend sessions in the allotment and not as neighbours of a municipal allotment. Huerto Comunitario Mapu Wangulen explained that the residents of its previous location were recognised as part of a *población*[38], a dense settlement of low-income inhabitants. In contrast, the current location is recognised as a *villa*, a less dense settlement for high-income inhabitants. The group mentioned a reluctance of the *villa* to accept them as part of the community because they did not know each other as much as the neighbours from the *población*. Although that was more a social difference than an economic one, they still agreed that both were part of the problem.

For Huerto Libertad, the differences were not just in the city centre. They were also in the periphery. There were fewer buildings and more empty spaces in the periphery, but also, they were more complications with addictions and crime in the *poblaciónes*. Fundación Mingako also mentioned that most environmental initiatives were generated in the city's wealthiest areas and that the municipalities from the periphery were excluded. For that reason, they decided to establish their allotment and eco-education centre in the periphery because they were born there. They wanted to manage the problems they had and give back to the community:

> *for us, it would have been easier to do this collective we are doing and found it in Providencia, where people are much more sensitised with this topic and have more responses, and we do the workshops there, and we will have money, but no, because we would continue the same dynamic that has always existed of segregation and bad distribution.*

They have developed projects in other communes, but their main centre was on the periphery.

Another inequality was concerning the purpose of the allotments. The groups perceived that the wealthiest people used urban agriculture more as a trend for life than the poorer, who saw them as a means to create connections (CS11). CS3 observed three groups interested in allotments. One was:

---

[38] *Población,* see footnote 4. *Villa* is usually perceived as neighbourhoods with less social problems, better houses and security. However, those definitions are based on the perceptions of the inhabitants since there is not a formal definition for each.

> *the upper-class people, with a lot of resources, who at the moment are interested in having a vegetable allotment in their patio and at home for a matter of fashion, because a friend has it because it is better to eat things healthy, to maintain the silhouette, that goes one way.*

For C11, this group already had allotments for beauty and to eat and live healthily. A difference that separated this group from others, according to E6, is that the richest could easily pay to have the allotments, while the poorest could not. The other group observed that it was the companies because they were companies that had been created:

> *to make you the allotment at home, so the person hires the company, the company arrives, makes the allotment, plants everything, more or less the janitor goes with the basket, the person looks and says: the allotment is beautiful! That is how it is* (CS3).

However, some groups mentioned that not all companies had the training and knew what they were doing. CS4 recalled seeing allotments with an incorrect installation, in places without sun, at a minimum distance and in incorrect positions, which showed that some companies lacked knowledge. And the last group observed was the people:

> *from* poblaciones*, from the neighbourhood, who are interested in it, for a different theme, for a theme of citizen participation, for a theme of using vacant land or available space, but that is not pure fashion. They are interested in something more social, but they are two different worlds* (CS3).

Huerto Popular Observatorio al Sur also perceived that in the poorest municipalities, allotments had a connotation of connecting people, of articulating a social movement.

The last inequality concerned the system, where most groups felt like the neoliberal system was using them. Huerto Comunitario Mapu Wangulen explained that they did not want to depend on a system that considered them slaves, that tried to trap them, so they decided to resist the system. One way they resisted was by educating and offering alternative market ideas (See Chapter 5 about resistance). For the group, providing a space for the women to learn manual skills that could be used as a job was a form of resistance to the capitalist system because people forgot the joy of creating instead of buying. They have "*forgotten what is to make with care and to make for one person, with imperfections, because handmade work is like that, it will not be perfect as you will find in Patronato or the Chinos*". CS9 agreed and explained that in Chile, there was a "*neoliberal paradigm of accumulation of wealth that is committed to the exploitation of man and exploitation of the environment*". As CS13 explained, we live

in a society where everything is very immediate and very easy. If you have money, you have access. And that left the poorest communities in a disadvantaged position compared to the wealthy since they did not have the same access to facilities and services. Allotments were their platform to resist that inequality of treatment and access.

7.3.2 Temporality

A concern expressed by the interviewees was the temporality of urban agriculture in the territory. In this case, there were two types of temporality: one related to the permanence of the space and the other related to the actual time used on the territory.

CS11 believed that for those more elitist initiatives, urban agriculture was a trend to pursue a healthier life, yet others considered these allotments as a way to participate and create community. CS14 mentioned that when they started, allotments were a concept that had just started around elites. However, today it has grown exponentially in all sizes, shapes and places. CS3 considered that urban agriculture aimed for citizen participation, vacant land use, and social actions. CS6 mentioned that despite urban agriculture was deemed somewhat trendy, it was related to the idea of meeting again and having a neighbourhood again. For CS11, allotments in the poorest sectors had a more political, territorial and transformative approach that was embedded in the theme of green areas and environmental awareness in the city, so they continued with these themes and added urban agriculture to their approach. CS8 explained that people were interested because they saw allotments on the news and were associated with elites, and people wanted to be part of them. However, when they continued to be interested in the activities and remained in the allotment, it told them that it was not just a trend, for them "*out of 20 people who come, perhaps ten or five take it as a trend and do not come again, but the others do, and they stay and ask more*". For the group, the most significant achievement was maintaining people in the allotment despite their original intention.

Different groups agreed that allotments would remain after the trend phase with those who understand the relevance of allotments (CS12, CS13, CS17, CS20 and E5). However, CS28 mentioned that the trend phase helped attract people interested in

food-associated trends, such as veganism, vegetarianism and healthy eating. Also, the interviewee believed that "*in the long run it will also be positive, ecology should be fashionable*". For E5, it was a global trend to talk about sustainability, better nutrition and food sovereignty, and, in these terms, the multiplication of urban agriculture will happen. Huertas Vecinas Antu Rewen said that if it was a trend, then they should take advantage of that, "*with XXXX we talked, let's take advantage of the fact the this is in fashion, let's apply, let's do this, let's do the other, that the councillors are still interested in this and we send letters and other things*". However other groups saw the situation differently, E6 disagreed with the trendy part because they thought that it was very natural to plant and obtain a harvest, "*we have been doing agriculture for 15 thousand years, we have it incorporated into our genes, that basis of why we relate is so natural, we had it so deep, we had it so repressed that it is coming out with force*". CS7 considered that urban agriculture was not a trend, because people did it out of a social and ecological need. People used it for a meeting space, for exchange, "*allotments may be unstable in places, but there are always allotments, and there will continue to be more*". CS29 also believed that it was more a change of attitude than a trend because a trend does not have an intention behind it, but allotments do have a political intention and a new way of thinking and seeing the world. And they perceived that even if they participated due to a trend, the result was positive because people changed some of their habits, even if they did not always remain.

The groups found that some people worked in allotments to say they were doing something trendy and unusual (CS18). CS27 mentioned that the trends were in a market logic with the elites' more 'new age' idea. However, allotments born in poorer areas had another logic. CS3 explained that because it was a trend for wealthy people and companies, they did not have gardening education or knowledge and only thought of this as a business. CS9 also said that because there was a trend of urban agriculture, entrepreneurs were selling allotments and offering them as a service. CS28 also perceived that elites had a commercial logic when they worked or created allotments because they saw the potential to obtain more income if promoted as organic products. Part of that trend idea had its downsides because some people used it without a deeper meaning. CS9 mentioned that a councilwoman began to make allotments in a municipality, but "*she went to a place, painted a drawer, put an allotment in them,*

took a picture and left; then the allotment after two days was dry or was used as a garbage bin". For the interviewee, the problem of seeing it as a trend was because it:

> *take*[s] *all the background out of the story that is cultural work, the allotment has worked every day, every day you have to be participating, moving the soil so that it is not compacted, so when there are no resources or when there is no background, I see that there are some tremendous sustainability problems over time* (CS9)

Many of those organisations that saw the allotments as products for people to have on their balconies or backyards had no educative intent and often failed because people did not have the time or training to maintain them.

Another aspect of temporality was the actual use of space and the lack of time. Time was one of the most mentioned limits for carrying out activities in Chilean society (CS1, CS2, CS5, CS13, CS18, CS24, CS26, CS27, CS28, CS29, E5 and E6). Ecobarrio Patrimonial Yungay mentioned that:

> *here what we see the most in the neighbours is lack of time, we lack the time because we still have to work on our own, we have to work on other things when we would like to be able to dedicate ourselves to this 100%, but it is impossible.*

The interviewee explained that with a work time of 45 hours a week, it was difficult to have time to improve the allotments. CS9 explained that the problem was the number of hours of work per week and the transportation and fatigue of the population. They explained that if someone lived in San Miguel and worked in Santiago, left the house at 6 a.m. and arrived at their houses between 8 p.m. and 9:30 p.m., they did not have time to participate in an allotment even if they had the motivation. Even CS9 recognised that sometimes they did not want to water the allotment, even though they know the importance of it, "w*e who talked about the matter so much, the allotment at my house has three tomatoes, the others all dried up and it is because you cannot catch up*".

Similarly, E5 mentioned that after nine hours of work, two of transportation, time with family and children, there was no time or incentive to work on the allotments. CS18 explained that their "*daughter arrives at eight at night, really tired because she has worked the whole day, so I cannot ask her to take a pickaxe and to start working here*". For the interviewee, people are tired workers and *"that is a tremendous reality in our country, and I believe that nothing is prospering in this country because of that"*. CS13

blamed the working system for long hours and lived to work. For the same reason, due to the urban area's lifestyle, participants were less motivated to work at the weekends, even if the job involved just gardening or watering plants (CS27). This increased the difficulty of maintaining the allotments because people had other responsibilities, which became lower priorities. E6 explained that people hired workers to maintain the allotment in some private allotments, as they did not realise the amount of work involved. E5 agreed on this and explained that people lacked time to develop projects despite their socioeconomic background because, as E6 said, some people had work and had money, but they did not have time to use the money. CS24 considered that people spent so much time working that "*nobody remembers where things come from, the effort it costs*" and, as CS26 explained, "s*ometimes the value of food and what it costs to produce it is undervalued*".

Despite the temporary nature of the allotments, for groups, allotments provided enough time to use the territory and resist neoliberalism by opting for more community-related activities; addressing socio-economic issues to the population; unravelling the situation of segregation, disparity and ecological problems; and reconnecting outside the economic system, in their free time, in a horizontal environment that believes in connections, that challenged the basic ideas of neoliberalism. Urban agriculture was already producing changes in connections and actors, as some groups mentioned, and they understood their position, because as CS8 mentioned, for neoliberalism, "*we are clearly a threat"*. They created a space in the territory, where their structures and organisations emphasised their cooperation and altruist attitude.

7.3.3 Security

Some UAPs noted the changes that urban agriculture provided in their surroundings. Seven groups mentioned that their allotments were created in vacant spaces previously used as landfills (Mingako, Huerto Comunitario La Berenjena, Huertablock, Huerto Popular Observatorio al Sur, Urbano Yungay, Huerto Comunitario Mapu Wangulen and Huerto Comunitario FAU). They explained that the land's appropriation and reconversion resulted in a change of meaning in the space for them and the groups. They noted that their continued presence in the allotment moved away the problematic

people and erased the previous sense of insecurity created by the drug addicts and drunks. E2 mentioned that in a study they did, the perception of safety for people was related to knowing the park visitors and not to the darkness of the places. Huerto Libertad agreed that there were many discourses about security and crime, people feel threatened and vulnerable, and, from those feelings, the community was more aware of the relevance of knowing the neighbours. Indeed, CS21 mentioned that the government only spent money on security management, which increased the feeling of insecurity, but it did not invite people to go out, meet their neighbours, and break with individualism. Now people were forced to stay inside while the delinquents were outside. CS22 explained that in the postulations to FONDEVE (Neighbourhood Development Fund, *Fondo de Desarrollo Vecinal*) for 2018, 70% of the accepted projects were related to security, leaving behind projects that incentivised organisation such as knitting, dancing and activities that could be used to generate community and income.

For CS24, the only way to decrease the crime index rate was for people to know their neighbours, communicate with each other if they noticed something strange, and create connections and contacts. For this reason, the experience of Huerta Comunitaria Las Campanas was revealing in terms of security. They noted the difference that the continuous use of space could generate in people. Drug addicts previously used the park where their allotment is currently located. Since they started, the group noted that these people moved to another park sector and left them alone. For them, it was a triumph because *"they are running away and we are invading",* they said that *"now is the space of the neighbours",* because "*we recovered the space"*, and *"now the neighbours pass by to watch, then that space is occupied, then that public space is recovered and they move, people no longer runaway, but rather stay".* In that sense, E4 explained that:

> *the use of the public space is a fight, if I do not use it, others will use it, if it is not used by a mom with their kids, others are going to use it, which could be good uses, it could be skaters, it could be old people playing chess, people talking, but it could also be people that are going to use drugs or drink alcohol.*

Similarly, CS30 mentioned that in their university UAPs:

I feel that if no students or people are working, I feel that it could disappear in the sense that the authorities can visualise that there is no one active and that they can destroy the space, then if people are working, there is some resistance, space is maintained, but if there is no one, they can see it as a residual space too, as we saw it at the beginning and they can build anything else.

For some groups, the reconversion of the land *"is a way to recover neighbourhood"* (CS25), because the neighbours saw the changes in the territory. CS9 mentioned that at the beginning of their cleaning process, the neighbours:

began to see that there was going to be an ecological foundation here, that there was no longer going to be the tremendous garbage dump that was here, that generated pests and things around it and also, they began to have a more interesting vision of our participation in the community.

As the spaces begin to change, the people around the spaces change too.

The territory was not just the physical place where activities take place but also the discourses and meanings produced in response to the physical place. UAPs want to improve the land and change the external perceptions of the problematic areas by their presence in their territory. The only limitation is the regulations since the municipalities are not yet clear on their position towards urban agriculture. Despite the problems, the allotments are aware of their presence and the consequences of their activities in the people, the land and their surroundings.

7.4 Chapter Conclusions

This chapter identified the main discourses formed by UAPs on territory and persistent societal challenges across space. This chapter's main argument is that UAPs want to improve the community's perception of space, changing its meaning and connecting people with the territory despite existing relationships and social challenges. Findings in the first part of this chapter explain some problems that UAPs mentioned in the previous chapters related to the lack of support from the authorities in financing and the use of space. The first finding of this chapter is that the lack of support from the municipalities mentioned by UAPs is due to administrative and structural problems. The areas of environment, sustainability and green areas are generally underfunded and are not considered a priority by the state and some mayors. What UAPs sometimes perceive as disinterest on the part of the municipalities for not supporting them

economically is usually the lack of resources of the departments that do not receive funding to develop their activities. Municipal departments and directorates do not support urban agriculture because their organisational structure and work areas are not aligned with the allotments. Each municipality interviewed supervised different areas within their departments and directorates, and urban agriculture was difficult to locate. It is a green area that uses space and focuses on sustainability, but it is not covered by the divisions that work on green areas, suitability or planning. For these reasons, there is a disconnection between UAPs and the municipalities that sometimes want to help but do not have the financial or technical resources to do so. The second finding is that the market determines the management of the territory. Civil society is at a disadvantage when it comes to modifying spaces. Due to their limited influence on decision-making and regulations, when UAPs use abandoned spaces, their actions are branded illegal, and their allotments are destroyed. However, the private sector has a political and economic influence on local authorities and could change the regulation in their favour, therefore projects that are illegal according to the legislation end up being accepted because the private sector intervenes so that their projects are accepted. This increases the disadvantage of UAPs in relationships. Municipalities and politicians tend to favour the private sector and are more flexible in their actions. However, civil society and UAPs do not have the same treatment.

The third finding is that urban agriculture rethinks the conceptualisation of territory and space. Neoliberalism determines that land is a market good that must be managed to generate the greatest profit. In contrast, urban agriculture believes that land must be managed to positively impact the neighbours' lives and that the community must participate in decisions about the use of spaces. The impact of neoliberal actions in the space results in poor neighbourhoods without services and infrastructures because the private sector considers that the risks are too high to invest in these marginalised territories. For UAPs, the lack of access and infrastructure is why those neighbourhoods need to have spaces that are beneficial for the community and why urban agriculture is used to change the appearance and meaning of abandoned spaces. UAPs understand urban agriculture as a solution to some of the social and environmental problems caused by neoliberalism in Santiago. Finally, it was found that the discourses and story-lines around the governance of the territory and the persistence of societal challenges refer to the consequences of neoliberalism and a

different type of governance. Inequality and segregation have resulted from a distribution of wealth that favours a sector of society and relegates a majority to live in municipalities without services or infrastructures. Working hours and the distances between the workplace, homes, and services restrict the population's time for activities that benefit their wellbeing. Segregation and insecurity in the neighbourhood resulting from delinquency and crime increased distrust of public spaces in the poorest areas and caused people to isolate themselves from their community. These problems have been influenced by neoliberalism and the community's exclusion in decision-making, the political space where they can explain their problems to the authorities. UAPs are trying to change these challenges by using allotments. They are proposing new green areas in neighbourhoods with abandoned spaces, they are changing the perception of insecurity of the areas by making their presence known in the space, and they are including the community in activities that can be used at any time since the allotments in public areas are always open. This chapter has explored through the discourses the intention of urban agriculture to be an alternative solution for societal problems caused by neoliberalism's interference in the legislation, actors' relationships, and neighbours' quality of life. The next chapter will bring the different themes in the research together.

Chapter 8. Discussion

8.1 Introduction

This thesis explored the network and discourses co-produced by actors around UAPs in Santiago. Through a case study with embedded units, this thesis unveiled the particularities of the relationships and views established by the different UAPs. In doing so, attention was paid to understand how they have been developed and maintained in the context of a neoliberal society. Firstly, this thesis showed the work of urban agriculture in the construction of social networks and discourses. It was argued that the social networks established by the UAPs with other actors were heterogeneous, while the discourses co-produced by the different groups and their members were homogeneous. The different networks showed the level of involvement with other actors. Those established within and between groups were stronger in their trust and reciprocity, characterized by common interests and their horizontality in power. However, those established with the state and the private sector were weaker and formed with some level of distrust due to the behaviour of the actors towards community projects. A more political and social perspective characterized the discourses and story-lines promoted by the groups. They emphasised the community's empowerment, the construction of community and social networks between local actors, and the resistance against the socioeconomic system present in the country. Second, this thesis referred to the circulation of knowledge and awareness within the urban agriculture networks and discourses. It was argued that urban agriculture allowed the production and circulation of knowledge, experiences and expertise

between the members and the groups. The use of workshops helped the groups to generate knowledge through the work and teachings of different people. It spread members' expertise and experiences with gardening backgrounds to other groups, creating a knowledge network.

For this reason, they highly valued indigenous and rural communities because they brought a different perspective of the work and due to their stronger connection with nature and the allotments. UAPs had a closer connection with sustainable topics, and they wanted to become promotors of awareness about environmental problems. They intended to influence people from the community, despite difficulties reaching those uninterested in the environment. It was a problem when the private sector was perceived as moved by economic purposes with a mercantile logic in their decisions and instrumentalising the environment for their benefit, when the state was perceived as less interested in environmental issues, allowing the private sector to intervene in nature and lacked public policies to protect the environment. Third, this thesis argued that UAPs worked in a complicated political and network setting due to the lack of organizations and legislation to support their work. The groups faced a socioeconomic system that preferred corporatism instead of the participation of all actors. A structural organization regarding green areas and urban agriculture were not satisfactory to meet environmental needs. Moreover, there were no legislations that validated or recognised their work in the territory. Their presence in the territory was often threatened by political and structural problems, which also exacerbated inequality, temporality, and security in the territory.

This chapter focuses on providing more insights into the main discourses that led the research and contextualised some of the problems caused by neoliberalism mentioned by UAPs in the previous chapters. The chapter is structured in three sections in which they cover the main points resulting from the analysis of the data and that help to answer the main research sub-question. The first section argues the Chilean case's peculiarities by analysing the differences between urban and rural agriculture in the Global North and Global South. The second section covers the broken connections that limit the work of urban agriculture in the territory. And the third section presents the changes in Santiago's environmental justice from reframing the space by UAPs.

8.2 Differences between Urban and Rural Agriculture in the Global South and Global North

Urban agriculture is perceived in the literature to behave differently according to the areas or countries. Usually, authors associated allotments started in the Global South with food production and food safety, especially in developing and poorer countries. However, those started in the Global North are associated with social and environmental intent, less focused on production and more in the community. Indeed Opitz et al. (2015, p.343) explained that in the Global South, urban and peri-urban agriculture was a "means for survival, providing people not only with food but also a living", where "farmers and gardens do not necessarily have a farming background", "it often lacks a legal status" and where "leisure or recreational activities are rarely to be found". Instead, in the Global North, the author mentioned that urban agriculture is "micro to small scale", it is motivated generally by individuals, operated by "non-professionals activists with short distribution pathways such as own consumption, charitable donations and direct marketing", and its "radius of distribution is predominantly limited to family, friends and neighbourhood". These generalised definitions found in the literature do not address specific cases with elements from both. Indeed, the author recognised that it is necessary to consider "the specific differences from country to country or even city to city" (p. 353). The Chilean case share similarities with the Global South and North, becoming a mixed category. On the one hand, it is in the Global South. However, it does not use urban agriculture for food production, poverty alleviation, generation of income, or response to economic crises described by Thornton (2018). It shows connections with indigenous and rural communities that are common connections established in the Global South, as mentioned in Chapter 2. It has problems with the allotments' legality due to a lack of policies and ownership contracts, and it uses rural agriculture for the national and international market, as shown in Chapter 7. The relation with the Global North, on the other hand, refers to the social use of the allotments to create community and to fight against the socio-economic system, the links to environmental gains, and the more physical characteristics, such as the size of plots and networks used by the groups. Santiago's case is an example of the complexity of urban agriculture classification in the literature since, due to its characteristics, it is challenging to represent all cases.

Agriculture in Chile is highly influenced by the countryside tradition of growing food to eat and sell. Family farms are usually the main traditional practice associated with local traditions and conscious management of the environment and land. These are the type of practices that UAPs use as references in urban areas. These are the practices that many of them have learnt during visits to the countryside or by transferring from their families since it is common for people in the rural areas to have allotments and cultivate seasonal food to help in their domestic economy. Small-scale agriculture includes indigenous communities' allotments. At a difference from the other farmers, indigenous farmers do not use agriculture exclusively for commercial purposes. They have a relation with the land characterised by their ancestral link and cosmovision. Their management is more about subsistence, involving growing vegetables, grazing animals, and gathering seeds from native trees, which is often the base of their diet. Indeed, Parraguez-Vergara et al. (2018, p.327) explained that in Latin America, indigenous communities' "traditional ecological knowledge comprises experiences, practical skills and techniques about the use of hundreds of species of plants, animals and fungi that can be used for food, medicine and building material". Altieri and Nicholls (2008, p.475) agreed with this more complex idea by explaining that "indigenous technologies often reflect a worldview and an understanding of our relationship to the natural world that is more realistic and more sustainable than those of our Western European heritage". The indigenous communities' relevance is their preservation of traditional and cultural practices regarding the land, agriculture, and life. Indeed Dieleman (2017, p.162) explained that similar to Chile's situation, in Mexico, urban agriculture has a positive connotation since it is connected with their "Mesoamerican roots that are largely lost". It is precisely that disconnection that makes UAPs feel more connected with indigenous communities. Both have a complicated situation with the land. Indigenous communities have struggled for decades to recover their ancestral land, and UAPs struggle with permanence in the space. The difference is that UAPs are not always the landowners, and the indigenous communities have ownership given by their historical occupancy. The indigenous knowledge regarding the management of the land and nature has led groups to honour them in their urban allotments by celebrating their ceremonies and maintaining their traditions and culture.

Urban and rural agriculture in Santiago have different goals and work with different strategies in the allotment. While rural agriculture is mainly used for food production, commercialisation or personal consumption, urban agriculture is usually used for social cohesion and community creation. Both types share similar characteristics about the allotments' management at small-scale as UAPs use them as references for their work, but their objectives are different. However, this does not mean that there are no productive allotments in urban areas, as mentioned in the research done in Los Lagos Region. Individual productive allotments used for personal consumption inside the properties are not considered urban agriculture by the UAPs in Santiago's case. For most groups, the critical element of the allotments is the social aspect. While personal allotments provide food, they are not fulfilling the social part required by the UAPs. Some allotments in this research are inside the properties, but those are open to work and offer activities frequently. This perspective is not shared by one of the interviewees in Chapter 5. They explained that allotments that do not produce results or productions are more like experiments and not proper allotments. While this can be true in other places, in the case of urban agriculture in Santiago, allotments that do not produce a constant production of vegetables to sell or give are successful because UPA considers that their objective is to create social spaces and educate the community.

Many groups mentioned that they have allotments in their houses, but none of them recognised them as urban agriculture. This difference is essential because different authors noticed that urban agriculture in the south of Chile is a family tradition used for economic purposes, but not for food needs (Zencovich, 2003; Pardo, 2008; Pantanalli, 2009; Vera and Moreira, 2009). People work exclusively in those allotments, have workers instead of volunteers and are family-oriented for the personal economy than social connections (Berdegué and López, 2017). This is also due to the type of cities analysed in the different studies, which corresponds to smaller cities, less urbanised than the metropolitan area, and where the urban and rural areas are more connected than in the capital. These are the most significant differences with the perception of urban agriculture of the Global South. Santiago's allotments do not share a productive objective, and UAPs do not identify with that association. Generalisations are complicated for odd cases that do not meet the criteria. Groups are aware that urban agriculture is used for food production in other Latin American countries. UAPs prefer to use their allotments to educate others about the food industry's demand and food

safety problems more than producing food to feed themselves or the community. Indeed, they do not see their work as a solution to food access. On the contrary, they see urban agriculture as a reflection of a social movement, creating social spaces and recovering spaces.

Urban agriculture in Santiago does not respond to food needs but to social deficiencies, as was discussed in Chapter 5. Food is not the main element produced in the allotments, but connections. For the same reason, allotments are not valued for how many kilograms they produce or how many varieties they can generate. However, they are valued for the number of people brought to the allotment and the changes they generate in their surroundings. Even more, groups themselves value the network's impact more than the environmental impact, which they consider minimal. Despite that allotments produce vegetables, produces are not used for subsistence. They are often shared between the members, used in a soup kitchen and given to neighbours. This disinterest in the productive aspect of the allotments by UAPs responds to the country's perceived food security, where food is not the most important problem to address because people have already access. Even if the allotments were interested, the plots' size is too small to create a productive allotment due to the high urban density, limiting the amount of food that the groups can obtain in their space. They must also face that the small plots they use on parks or abandoned areas have a low-quality soil, compacted and exposed to the chemicals and contaminants that decrease the food production.

In the case of urban agriculture in Santiago, UAPs do not have a strong attachment to the idea of equal distribution and access. However, they think about equal access to food production, distribution, sovereignty, and security to break the system. Food injustice is a term used in different countries where the community look for alternatives to produce, process and distribute food regardless of the community background (Horst et al., 2017). In Santiago's case, the justice part has more relation with the concern of UAPs about information, food, sustainability and ecological problems than the lack of access or food problems or food insecurity or disparity. I agree with Horst et al. (2017) when they mention that urban agriculture by itself is not going to create profound changes or fix inequality problems in the communities, but as seen in the previous chapters, it can set a path and open an option for the benefits

to start to work in other areas. That is one reason why the groups consider that knowledge is more important than practice because it creates greater changes and causes bigger impacts. This situation does not happen in those allotments that are just productive and not social or educational because there is no transfer of knowledge between the actors. Rather than producing or selling food, they build collective knowledge that is empirical, colloquial and common. That does not mean that UAPs reject expertise, on the contrary, they have workshops with experts to educate people and provide even professional skills, but groups value the knowledge that comes from communities using allotments for decades.

As argued in Chapter 6, many members recognised that they are not experts and learnt while working, workshops, or groups. This collective knowledge that circulates through people and groups brings back traditional knowledge with even more reverence and respect than those formed in universities and institutions. That change allows more horizontal participation between the members by incentivising the sharing of knowledge from multiples voices instead of having just one authorised voice in a one-way conversation. This circulation and horizontality of the actors is part of the networks described in Chapter 3, where they are the means where information flows between nodes through links to reach the actors. This circulation of knowledge in the networks horizontally makes information no longer a precious possession of a few or a privilege of some that need to be kept hidden or sold for a price, but it is open to everyone in the network who wants to learn. Information, experiences, and expertise are shared and transmitted, creating a collective knowledge that is refined, corrected, and increased as it moves through the groups in the networks created. Like how indigenous communities share their culture through oral tradition with the families, knowledge circulates and moves through the community. Due to that circulation, workshops and events are open and free to everyone because it allows knowledge to move outside of the networks and reach people who have not been part yet. I agree with Horst et al. (2017, p.282) when the authors explain that in urban agriculture, participants "gain knowledge about the natural environment and develop tangible skills in cultivating food" and a greater appreciation for their food.

Allotments bring back recognition and honour to the dormant knowledge of the older and more nature connected generations. Horst et al. (2017, p.282) recognise the

allotments' characteristics as "places of cultural learning and sharing" of cultural and traditional knowledge. In a society where experts are just those with an academic degree or those who provide a service, there is free knowledge given by people who learnt by experience and familiar traditions. Parraguez-Vergara et al. (2018) explain that in Latin America, traditional agriculture is based on the accumulated knowledge of the environment and life for centuries. There is honour in the transferring of knowledge. After all, most groups mentioned that they became more interested and had some ideas about gardening because of some relatives who lived in the countryside. I refer as knowledge in this case to the coordination of planting and harvesting according to the moon cycle, to the selection of specific species that combined support each other to increase the production and avoid infestations, to the learning the herbs properties and their use for medicine, and to the planting of different vegetable variations that are just available through barter because they are not sold. That type of knowledge is the one that groups value and try to mirror in their allotments and personal lives. One of the most commented uses of the allotment is medicinal herbs as part of urban agriculture. This is one of the non-traditional productive results of the allotments. Often people approach the groups to obtain herbs to use for illness. Here, there is also a transferring of knowledge as identifying the species and determining the uses depend on the knowledge acquired by research or contact with others. Torri (2010) explained that the learning process to choose and combine the plants belong to women, and it is often transmitted from generation to generation experientially and empirically. As explained by the authors, there is no evidence of formal education related to the herbs' properties in schools, but there is in the families where it is common to use them to alleviate illness. Often, allotments are used by people of different ages, which offers the older generation an opportunity to provide their experience to the youth, as mentioned in Chapter 6. They do it by teaching, participating in activities and taking care of children during events.

Social connections and education are valued sources for UAPs. Both meant educational and social objectives; they only work at different levels, while allotments bring people to nature, workshops bring people to the sources, the knowledge and the traditions. They use them as tools to solve community problems, but also for personal interests. Allotments allow people to recognise that they can plant and produce part of their food by themselves, opt for alternatives to the system, and choose their course of

action with freedom. They provide the tools for people to act, and by doing so, they modify the system. A difference between other countries in Latin America and the Global South is that their interest is not providing people with food. They provide people with knowledge and their skills to work with them. A difference with the countries in the Global North, allotments not only fight for social cohesion and against an economic system, but they also bring knowledge from the rural areas and indigenous communities, honouring their knowledge. As this, urban agriculture allotments from Santiago are not associated with any location. They belong to their own category, a mix between both, bringing traditions to the urban areas and fighting for a better society. The knowledge formed in these groups is based on trust in the groups' beliefs and identity, on personal interactions and exchanges between individuals. According to Thomas et al. (2020) this trust varies overtime on depth, strength across the different interactions and spaces. A way to maintain this built trust is to maintain it over time, strengthen it by regular contact and ensure consistency. Like this, trust and social capital are important to knowledge sharing since people are more likely to utilise knowledge from a trusted source.

8.3 Broken Connections in the Development of Urban Agriculture

Connections are essential for urban agriculture. Allotments thrive and flourish when they connect with the environment and community, unravelling a way of valuing and using the resources that bring respect and appreciation to others. More than simply inhabiting the space, urban agriculture forms strong attachments to the physical areas where they work. While simple in appearance, the act of planting provides people with a sense of perdurance and transcendence, as they symbolically create roots in the land, dig their problems into the ground, harvest ideas, and produce changes. Without their connection with the land, there would be no problems when the municipalities relocate them, but they start to unravel the brokenness they face in their relationship with other actors. UAPs conceive connections as more than a relationship between people. They perceive it as a broad concept where environment and place are located because both hold essential elements to forming their networks. Fernández (2013) sees the community organising when they encounter problems to show others that they can stand up and fight for their spaces. As seen in the previous chapters, the complexity of

urban agriculture means that it faces complications at different levels and from different areas, showing systemic, horizontal and vertical broken connections that affect the development, maintenance and permanence of the allotments in the territory.

Social connections are difficult to maintain as they depend on the actors' willingness to maintain the relationships. Chapter 5 shows the groups' interest to connect with a diverse range of actors to work in a synergy of giving, taking and spreading information and help. This attitude is mentioned positively by Thornton (2018, p.10), explaining that "the formation of urban social movements as influential political actors in policy change is dependent on the formation of dense linkages". The more connections the groups establish the more access they will have to financial and work resources, which facilitates the allotments' permanence and performance. However, groups with fewer connections are still important because they have developed a different relationship with part of the network based on the space, environment and community members. Despite their lower scale, they still influence others and make changes from an externally perceived reduced position.

Groups cannot work without connections, and they will not last without the community. These networks differ if they are bonding, bridging and linking relations. Rydin and Holman (2004, p.120) explain the results of the different relationships and their relevance in the networks. While bonding capital "would support grassroots development based on community participation", "bridging capital would link donors, government agencies and local communities through the mediation of NGOs to support development" (p. 120). Those differences are what would make the networks and outcomes richer. Chapter 5 shows the different networks that groups established and the differences between them. There is a strong bonding capital within UAPs, a clear bridging capital with the other groups and a weak linking capital with the other actors, especially the state and the private sector. This difference in the number and strength is reflected by the groups' trust, reciprocity and collaboration. The more confrontational relationships with the local authorities and private sector are based on mistrust and sometimes opposition, which do not create cooperation. This reaction refers to the perception of state work. As mentioned in Chapter 3, when explaining the relationship between government and governance, the relationship observed in Chile is more of governance above the government in the decision-making power and not

the complementing relationship that could allow the inclusion of more actors levelling up the field. In some cases, the transfer of authority from one to the other is clear with repercussions to the other actors and the environment, which generates a lack of sovereign authority and autonomy. However, this type of relationship established in Santiago differs from the classical definition of governance and tends to be a conflictual relationship between the actors. In more classical networks (mentioned in Chapter 3), actors from the state, the private sector and civil society work together for a common goal, which does not mean that there are no conflicts between them, only that there are mechanisms that allow them to establish some common interest on which they can act. The connections observed in this research refer to a more community movement with a conflictual relationship with other social actors. For Arenas and Hidalgo (2014), urban governance can only be formed in Chile by creating new associations where the state helps create conditions for the community to contribute through organisations from civil society to the generation of new spaces.

Neoliberalism is deeply integrated within Chilean society and relationships. In a system that values individualism, self-interest, self-gains and power imbalance, urban agriculture presents an alternative that cherishes community, partnerships, horizontality and solidarity. Urban agriculture is, from the very beginning, proposing an alternative way of working and addressing society, which presents a problem for them since they want to maintain their beliefs unaltered while navigating through a system that does not share their ideologies. In this society that influences the type of actors' relationships created, urban agriculture groups, face a disadvantaged position from the start. The state and private sector share a close connection in the decision making at all levels and in all kinds of topics. In some cases, the state even acts as a facilitator for developing the private sector business, allowing them to continue projects that are not allowed to the civil society. They plan and decide on the future of the cities and the country's development with little to no civil society participation, which is often relegated to consultative meetings after the projects have been decided. It is like what Thornton (2018, p.60) describes in Australia, "where urban land use decisions appear quite fixated on serving neoliberal interests, at the expense of innovative city-community partnerships for healthy 'liveable' cities'". In Chile, in many cases, it is the private sector and not the state that has the stronger influence in

the development of the cities, which just reflects the state's diminished position over the territory.

Exclusion breaks the connections between the actors. In their limited participatory position, civil society looks for instances where they can be part of the changes by either joining the system and looking for options while following the rules or opposing the system and finding alternative ways to meet their goals. UAPs perceive the state and the private sector as opposite actors concerning the environment work, which strains their relationship. As the state and the private sector prefer the market and the economic production over the protection of the environment, UAPs takes the position of an environmental awareness advocate and social movements leader. As mentioned by Milbourne (2019, p.27), "the continued shrinkage of the state and further reductions in the funding of public and welfare services in some countries will no doubt lead to new challenges for community gardening projects". Moreover, that is precisely Chile's situation, where UAPs have embraced their position as game-changers. Groups and organisations want to spread information and awareness about social and environmental problems to less informed people. Their intention is to bringing attention to problems related to the state and the private sector's behaviour. UAPs want to take the educators' position, teaching about topics not covered by the state or unknown by the community. Due to their workshops experience, they know that people are concerned and interested in participating in activities to learn about the environment, injustice and sustainability than other actors. However, this does not mean that they will be agents of change; they have the intention and motivation, but their impact in the future is unclear. As seen in Chapter 5, their scope is still low, but they connect with other groups, organisations, and initiatives to support other actors and increase the topics' spread. As Bresciani (2006) explained, the inclusion of diverse actors allowed the construction of long-term agreements that reduce conflicts and support plans.

UAPs have a critical perception of the private sector and the state because they see how their allotments are used for personal economic benefits. Their problem is not precisely that the allotments are used for economic purposes, as allotments could be used to sell products and few even do it, but here the conflict is when they are used just for marketing purposes to generate more income with no environmental ideas

supporting the actions. The main problem is that urban agriculture stops being a social activity and even a food production activity, transforming it into a marketing tool. When companies start to sell allotments as a product and offer maintenance services to manage the allotments, the social objective is lost. This commodification of allotments eliminates the most relevant aspects of what makes the allotments crucial for the people. There is a perception that the state and the private sector use sustainable activities because they are perceived as correct, not because they have understood its benefits. Indeed, Bach and McClintock (2020) found in their research that municipalities use voluntary initiatives such as urban agriculture to brand themselves as green and attract investors and consumers.

The state does not provide environmental legislation according to the standard the country needs and continues promoting polluting and extractive activities from the industries. UAPs see some authorities' interest in their work, especially those with environmental awareness, but they are cautious in their approach because they assume the authorities would take over the activities or use them for votes. Thornton (2018) explains some tensions in UAPs when they feel the authorities are co-opting or appropriating their allotments because they see a political opportunity in their support. Like these research results, the author found UAPs preferred to work independently of bureaucracies since they considered the authorities intervention to interfere with the space. One of the allotments' risks is to be adopted by the system and considered a marketing product and not a community project with social ideas. The groups see this disagreement between the authorities' actions and discourses and decide to fight for sustainability using different means such as activities, education, and protests. That is one reason for their interest in connections with the local actors to reinforce the community's impact. They work with local and small businesses that do not participate in large companies and states' networks. van Holstein (2019, p.1297) explained that "community gardeners strategize in alliance with commercial and government parties and that this way they simultaneously resist both market mechanisms and government control". By seeking their connections, UAPs start to connect networks that were lost. The locality and the preference for close relationships increase the continuation of the networks and the activities' potentiality. The connections created with other local organisations, especially other UAPs, are based on reciprocity, where help and knowledge flow through the connections.

8.3.1   Legality, legitimacy and institutionality

Most UAPs in Santiago are characterised by their informal emergence and the absence of legislation provided by the state. Villagrán et al. (2014) observed that although recognition in planning is not the only factor influencing its development, it impacts Santiago's scarce proliferation of allotments. Similarly to Djokić et al. (2018) in Belgrade, UAPs have been created as informal and non-legal practices to express the users' needs for the many benefits and services. While urban agriculture's performance does not depend on institutions, as most of them are self-funded and self-organised, their permanence in the territory does depend on the institutions. UAPs are located on appropriated lands or are under precarious contracts, and for that reason, they have suffered relocation and eradication. The work of UAPs is limited by the restrictions set on the regulations, which define agriculture as an exclusively rural activity (Villagrán and Qiu, 2013). This fight for inclusion in the territory is directly related to the vague legislation regarding green areas mentioned in Chapter 7. The broad definition of green areas that allows elements other than vegetation and the term public spaces to refer to green areas limits the general understanding of urban vegetation and prevents the development of other projects or activities that include vegetation. Public and private actors follow the legislation and create spaces that meet the minimum requirements. However, those spaces are not what civil society refers to as green areas. Those are spaces for alternative activities and uses that are not oriented to the creation of a better environment but the increase of economic growth.

Municipalities and UAPs are not just about the legality of using the space but also the lack of financial and technical support to continue activities. However, this corresponds to a more complex problem where urban agriculture is just part of it, but not the only one affected. While many groups expressed their complaints about the lack of finances to develop the activities, the municipalities' directorates did. These limitations impede the directorates or departments from acting in the territory and working with organisations to improve the environment. They are restricted to providing information and technical assistance to the organisations in their territory. This also reflects the level of relevance that the state and municipalities have regarding the environment. The findings were corroborated by Vásquez et al. (2016), who explained that the topic does not have enough political importance to be a priority

within urban planning in Santiago. In many cases, this area receives the least attention. Some could argue that is because poorer municipalities need to focus their budget on other areas. While that is true, the environment's quality should not be considered a luxury that just wealthy municipalities can afford. It should be treated as relevant since it affects the neighbourhood's perception and the quality of the local environment. The Municipality of La Pintana, one of the Metropolitan Region's poorest municipalities, also has one of the strongest departments of the environment, which has been working on recycling domiciliary waste since 2005 to reduce their expenditure in waste management. Political will, especially in places with more financial needs, are fundamental because the priorities are constantly changing, and when there is an economic emergency, the environmental issues are disregarded. If municipalities are interested in supporting the environment, they will find ways to do it despite the lack of budget, and they can function regardless of the mayor's support, which is appreciated but not mandatory.

The limit for the connections in urban agriculture is the availability of time. Groups have limited working time available, and most use it solely in the allotments since socialising with other groups takes part of their scarce free time. Connections with groups from other municipalities are the most affected, as seen in Chapter 5. However, the socialisation level will depend on their willingness to sacrifice time to establish strong connections by either reaching groups outside their municipality or straightening connections with groups within their municipality and investing time in them. Maintaining connections is continuous work. It involves a willingness to form relations and maintain them over time. Those same connections lead the groups to work with specific social or environmental groups that follow their interest. Despite the orientation, number, and scope, connections are still established because their main objective is to spread their work and influence as many actors as possible. While some actors prefer to include as many groups and actors as possible, others are more restrictive in their association and prefer specific actors. However, even those restrictive connections help create the urban agriculture network and spread the activity to the outside population. Despite that time availability is limiting for the work, geographical position and mobility are not a limit.

A peculiarity of these UAPs is their horizontality in the organisation structure. There is a preference for top-down and vertical structures in Chile with a leader or president who defines the lineaments that organisations follow. Horizontality is part of the groups' ideas and characterises their internal and external connections with actors and allotments. With a perception of equality and integration, groups consider others equal in knowledge and opinion, where differences are allowed and promoted to create more prosperous allotments. However, those same principles determine how they behave with other actors and expect the same treatment. With the state and private sector that privilege verticality, segregated and top-down relationships, there are problems with the connections due to the different perspectives of organisation, trust and power. With members and UAPs, the relationships are more accessible and permit the mobilisation of resources. UAPs use a horizontal structure for their activities and promote equity within the groups, making decisions based on the group members' general agreement in assemblies. There are cases where natural leaders lead the groups, either because they are older members or active participants of allotments. The problem of leaders in these voluntary activities is when they leave the groups. Usually, their departure weakens or disband the groups because they have influence and social skills that others did not develop. In groups with high participants mobility, a strong core of members helps maintain the allotment for longer as they have several people to lead on activities. With a core group of members, the group maintain their horizontality and decision are still managed by the assembly. One of the groups interviewed suffered the split of the members. Due to internal problems, half of the group left, and just two core members remained to support the group. The two members noted the difficulty of maintaining the allotment and activities and tried to form more core members to share the weight of managing the participants.

Although some groups are willing to have horizontal participation with the state and private sector, they cannot do so because the municipalities and the private sector's responses have been negative. In this sense, there is no governance in relations between those actors and UAPs. Most connections are at the local level, rather than including higher levels where the state and the private sector are. While most groups with mutual interests are horizontal, the groups still perceive that the structure with other actors is hierarchical and that they are outside the system rather than included in the networks. These connections are not enough to form governance networks due to

the frequency of interactions and the unequal position of UAPs with the state and the private sector. However, Thornton (2018) perceives that urban agriculture could enable partnerships for inclusive, resilient and liveable cities.

At the group level, horizontal organisations allow the connection between members from different backgrounds and histories. UAPs use a horizontal structure while connecting with as many sustainable and social organisations from the local level as possible to generate a network of impact on the community, which contrasts with the government's corporatism in its relationships. They work as a community movement, including other actors in their neighbourhood and working together to spread knowledge and a sense of community to the neighbours. They can bring together and involve a wide range of actors of different levels and interests. One of the groups even adapted a round seating structure to have meetings, where they could be in the same position looking at each other. Even those allotments created in universities welcome the participation of neighbours and workers. However, horizontality could create problems in the negotiations with more formal organisations, as most decisions must be agreed upon with most members instead of just one assigned leader. This horizontality presents a double edge situation. On one side, it allows equality in participation or decision making. On the other side, those same characteristics hinder establishing a formal urban agriculture network, as there is no core group of leaders that guides and organises the network's work. Although the UAPs social network includes many different associations with social actors, most interactions outside civil society and social and environmental groups are not strong since it usually involves only one activity. They can work as a short-term connection, but those networks need the continued participation of some interested members in maintaining the connections but are limited by their available time.

Broken connections limit urban agriculture and threaten the allotments' vision regarding the market and society. Allotments without connections are just decorative spaces. Indeed, Thornton (2018, p.13) mentioned that:

> UA is not a singular activity or practice that operates in an isolated space. Its strengths are rooted in social, economic and environmental relationships and interconnectivity in, what is often fragmented, policy spaces. It thrives where urban society and its institutions are connected, where the overlap is identified linking community needs and government policy.

The author emphasised the need for relations, networks, and associations to make urban agriculture flourish, but reaching this level of networking required a scenario still not available in Santiago, with actors and policies that are open and accessible for the groups where different positions are accepted and welcomed. UAPs are often criticised and classified as communists for presenting an idea different from the market logic or promoting participation. UAPs, especially the poorer population, has a culture of participation born from their need to form spaces of support in their communities as they do not possess the same power and influence as the wealthier communities. Their only tool is to gather the community to raise their voices to communicate their demands. Perhaps it is necessary, as mentioned by Thornton (2018), to link local government resources and structures with civil society to create a sustainable urban future. Urban agriculture is working through those breaks by strengthening those connections already formed and linking lost others. The participation in different networks that are not related to allotments shows the capacity of UAPs for adaptation and their concern with environmental topics outside of the allotment work. They are making changes even when they are not together with the big actors since the community is their main objective, and they are forming their networks and activities. After all, urban agriculture is not just about planting and producing, but creating relationships with other actors and allotments, creating an unknown and silent network that is spreading at a low level and modifying society slowly.

8.4 Environmental Justice through Reframing of the Space

UAPs in Santiago use the space to challenge the economic system by changing its meaning. They do not do it in a confrontational way through violence or protests; they do it using the space. Pérez (2019) explains that groups emerged to demand social inclusion by vindicating the 'right of the city', which materialise with the simple fact of inhabiting the space. Most cities have a land-use plan that regulates the use and the areas that conform to the city, which actors usually follow. UAPs do not follow that plan. They select abandoned spaces and transform them into allotments. By doing so, they are doing a political act. They are taking something not there, turning it into something valuable and open to the community. That space that was previously inaccessible, problematic or even useless is now valuable and productive. As

Battersby and Marshak (2013, p.5) explain in their research in Cape Town, groups are reclaiming space that has not been provided since "do have to wait for government and planners to intervene". In this case, the groups open the door to start questioning who has the right to alter the spaces and in responding, they challenge the current land use that has led to the diminishing of green and recreational areas. Moraga (2018), in his research of urban agriculture in Santiago, agrees that urban agriculture's contribution is to face the shortcomings that are deepened in the city, such as the underutilisation of sites, the absence of contact with nature, the lack of spaces dedicated to leisure and the scarce participation of the community. There is a conflict between what the community needs and what the neoliberal market offers, which does not solve any problem the community has. Thornton (2018) describes the spaces as "historical and socially configured" (p. 9) and "socially and politically produced" (p. 7). There is a combination of historical, social and political aspect in the space.

Urban agriculture uses the land to send messages by making a presence, by using the space and inviting people to join them. When using allotments in their neighbourhoods, the groups' main interest is allowing community creation, which has been lost because of the social system and benefits the environment, which the government largely ignores. The social movement origin of some UAPs responds to that need to use the spaces to propose ideas and changes. Bach and McClintock (2020), in their research in Montreal, also associate the emergence of urban agriculture with university students protests and the need to create new opportunities for people to experiment with open participation and democracy, mobilising people and showing what citizens can do in a city with these platforms. Now space is not just a piece of land; it is at the centre of the movement. It is the epicentre of a network of actors and knowledge that look for alternatives to a system they do not approve, a platform to demonstrate a new organisation proposal and a tool to fight against the model. At the lowest level, urban agriculture allows conversations between people who otherwise would not talk; at the highest level, it proposes an alternative socio-economic system based on the community. From the moment urban agriculture was installed in the land, space is now a discourse.

Space is always a point of conflict, either by their use, misuse or abandonment. It seems that an abandoned space or a landfill is not an issue until someone cleans,

recovers and uses the space. Then, it is a conflict. Halvorsen (2018) explains that when people attempt to appropriate the space, they inevitably engage with dominant ideas and practices of territory tied to the modern state. Rosso (2014) argues that conflicts arise when the state and citizens have contrary perspectives and capacities about city space production. Many groups did not encounter problems when they were establishing their allotments. The conflicts always started after authorities recognised the spaces' value and approached them to reclaim the land. Horst et al. (2017), in their review of urban agriculture cases in the USA and Canada, found that it is typical for UAPs to see the destruction of their allotments when the land is perceived to produce a high profit with a different use, which creates conflicts between the UAPs and the actors interested in the economic potential since both are competing over the land. Land is often seen as an asset for the private sector to obtain the maximum profit in the available space. Madaleno and Armijo (2004, p.47) explained that in Chile, "urban development policies are characterized by the postulate of minimal State interference in the free play of supply and demand for developable land. This trend of occupation of the territory according to the market's preferences, of a neoliberal tone, has prevailed in the country since the times of the dictatorship". Urban agriculture does not follow that idea. Groups do not see the market price or the economic potential of the land. They only see their social potential. However, municipalities rely on revenue from real estate for funding, and the private sector can use every available land in their territory to provide them with funding. In urban contexts where local governments increasingly rely on revenue from real estate development to carry out their responsibilities, community allotments are in competition with developers over land and other community projects over scarce public resources (van Holstein, 2019). Indeed Vergara-Perucich and Boano (2020) explain that in Chile "urban design field lacks critical postures against the neoliberal agenda because the contemporary urban design is a creation of neoliberalism". This brings questions about the land valuation, where urban agriculture is on that scale, why allotments need to disappear to use the space for parks and parking lots, and the relevance of nature and social cohesion for the authorities.

It is hard for groups to overcome the destruction of their allotments after recovering the abandoned public spaces. However, the use of public spaces brings two different arguments. On the one hand, it relates to the concept of private property and the state's

role in guaranteeing it. In a sense, the appropriation by the groups is also private appropriation, no matter what their views on capitalism might be. The groups are accountable to themselves, and therefore private, whereas local authorities might be accountable to a much larger constituency and therefore have to accommodate different views about what a particular plot should be used for. For the groups, the allotments are their spaces of connections and participation. For the municipality, those are illegal appropriations of public space that go against their regulations for land use. One the other hand, the land has already been taken, not as obvious as with the allotment, but the land has already been taken by the insecurity produced by landfills, drug addicts and alcoholics. No one else felt safe enough to use the park as a park. Horst et al. (2017), Villagrán and Qiu (2013), and Banzhaf et al. (2018) agree that urban agriculture has the potential to prevent or reduce delinquency and crime in the neighbourhoods since it improves areas, replaces vacant lots and builds community. With the allotments, UAPs liberated the spaces from people who were making improper use. Allotments create a potent force that is not recognised yet in Chile. As explained Battersby and Marshak (2013) and mentioned by the groups, just the daily presence was viewed as having potential community benefits. The single act of taking care of the allotment changes the meaning and perception of the space and challenges our understanding of the city.

The most conflictual interaction between UAPs and municipalities falls on the destruction of the allotments. It is difficult for municipalities to recognise the work of urban agriculture groups and allow their permanence in the territory. The local regulation does not refer to the groups' activities. There are no guidelines to support or control the proliferation of new initiatives, which leaves each municipality to act according to their perception of urban agriculture. This means conflicts with groups that use abandoned land or parks most of the time, as they do not have the authorization to work. Despite the potential social and ecological benefits of the gardens, municipalities have a greater concern about the legality of using the spaces than the potential environmental and social benefits. Several groups mentioned the conflictual relationship with the municipality that ended up in their relocation or destroying their gardens. This relation differs from the facilitator state defined by Ostrom, who provides local autonomy to individuals and a supporting framework, emphasising "individuals and groups providing their institutional arrangements to solve collective

action problems with the state" (Rydin and Pennington, 2010, p.164). It is difficult for urban agriculture to find a space under already limited urban green areas because it has to struggle for legitimacy, recognition, authority and visibility in an unfavourable system; however, their omission could be their benefit, as there are not considered as undesirable activities to develop in the city.

Urban agriculture has the potential to reconnect neighbours and incorporate nature. They intend to break borders and turn barriers to allow people to use allotments as theirs. Despite the groups' intentions, they are sometimes seen as private, limiting interactions with the neighbourhood. UAPs work in a continued defiant attitude of giving people what others have not allowed them to have and bring back the community with their connections. Allotment allows narrowing the bridges that the system has formed between people. That multigenerational feature makes allotments so valuable. It offers a place where grandparents, children and young groups are in the same space, where the young take care of the grandparents and the adults of the children. Horst et al. (2017, p.282) explain that allotments provide an alternative to crime groups and "drugs for local youth drugs for local youth and a place where the elderly could contribute meaningfully to their community". Battersby and Marshak (2013) agree that urban agriculture provides a safe space for women and provides children with a place away from the dangers of street life in low-income neighbourhoods.

Any interaction formed by the allotments, even if brief, is accepted as a connection. Even if they never put a foot in the allotment, people asking for herbs or donating materials are considered connections. Those small interactions reflect that there is something that UAPs has to offer even to those who are not using the allotment. For some, the simple act of asking questions about the allotment or asking for specific vegetables or medicinal plants to cure diseases, which most of the time ends with people telling their problems, demonstrates the impact of UAPs on the community and the need to contact with others, even in short meetings. Pérez (2019) explains that social change results from a particular social experience in an urbanised society to inhabit the city. The groups perceive a physical and psychological impact on the members and participants. However, for UAPs, those results are only reached in community allotments when the networks are extended. The attachment the groups

have with the land is created by the relationships established in the territory. The value they add to space is because it has been the platform to form connections. For that reason, it is so difficult for the groups to live with the constant uncertainty that they could be displaced, breaking their attachment to space and the people. Agyeman et al. (2016) explained that disruption of those attachments could be conceptualized as environmental injustice, harming individual and collective well-being and resulting in people losing their sense of doers and actors.

Urban agriculture unravels spaces of inequality and social injustice. Agostini (2010), Repetto (2016), and Zunino and Hidalgo (2009b) argue that in Chile, inequality is reflected in social and economic areas causing residential segregation due to the liberalization of the land markets and housing policies. Indeed, Barron (2015) and Vergara-Perucich and Boano (2020) pointed to neoliberal policies in planning as responsible for the uneven and null distribution of access to goods and services in low-income neighbourhoods since more deprived areas could affect the value of the investments. So, the poorest municipalities suffer a combination of low level and low access to the green areas. de la Barrera et al. (2016) and Reyes-Paecke and Pavez (2016) explain a positive correlation between the spatial distribution of green areas and the population's income. Green areas are allocated according to class; low-income municipalities in Santiago tend to have fewer and smaller green areas than high-income municipalities. For people that must move around the city, the difference in care and treatment of the green areas must be problematic. The poorest municipalities suffer a combination of low-level and low access to goods, services and green areas. In this position, urban agriculture is an opportunity for people to create more green areas accessible to the population. After all, green spaces are areas that promote interaction between different social groups. It is not casual that most allotments of the research are in middle- and low-income municipalities. It responds to a need for more nature and community since the neighbours do not have private green areas in their homes and depend on those created by the public areas. The wealthiest sectors already had ample green areas that are maintained by the municipality; however, the poorest sectors have empty lots, landfills and abandoned places that are usually recovered by the neighbours. Different authors have mentioned that segregation, with a concentration of comfortable infrastructures in the eastern cone of Santiago and stigmatized, socially problematic peripheries with insufficient facilities (Sabatini et

al., 2001; Fuentes et al., 2017). Elden (2007, p.106) argues that "social space is allocated according to class". The author also mentions that this is seen in the "abundance of space for the rich and too little for the poor" and the "uneven development in the quality of places".

Group members have a specific discourse and political perspective due to the activities and workshops. UAPs address different types of injustices in their discourses and practices. One of those refers to food injustice, which fits under the umbrella of environmental justice, as Agyeman et al. (2016) mentioned. As mentioned by the authors, food justice refers to areas such as "food access, food security, and food sovereignty" (p.331), but also with other topics of disparity regarding access to environmental goods, land use, respect for the land, and the production chain in general. While the case of UAPs in Santiago does not address topics related to people of colour and immigrants, they pay attention to the injustice of low-income populations and indigenous communities, with an emphasis on their culture, who are considered by Paddeu (2017, p.4) as "the most vulnerable victims of an unjust global food system". However, UAPs do not centre their concern on obtaining equal access to food, but they provide equal access to information and opportunities for participation in decision making. In this case, their discourses' focus more on political and social than food, addressing problems of justice, community, power, and resistance. In this sense, the concern of the groups are closer to what Agyeman and Evans (2004, p.160) called just sustainability, "an equal concern with equality, justice and, ultimately, governance on the one hand, and environment on the other". As argued in Chapter 5, urban allotments in Santiago will not solve food injustice problems. After all, food is not their main objective, and they do not produce enough to feed the members or community. In a similar point, Horst et al. (2017) explained that urban agriculture alone cannot solve the fundamental causes of food injustice, which include areas such as poverty and economic disparities, and can even perpetuate these inequities if the concerns are not addressed.

It was mentioned in Chapter 5, Santiago is used as resistance against neoliberalism and rejection against capitalism. Through the different activities and discourses, groups present an alternative proposal to deal with the market. This also was observed in Belgrade by Djokić et al. (2018). The author qualified urban agriculture practices

as a "slow and gradual urban improvement", an act of resistance and a "possible answer to the city's environmental, economic, and social problems" (p. 256). Bach and McClintock (2020) and Zunino (2014) agree that resistance is an act of reappropriation of state power by actors not dominated by the neoliberal rules. Many of the members find incongruences and disparities in the access to goods and use of natural resources. Horst et al. (2017, p.283) explained that urban agriculture is considered "to increase their self-determination, contest dominant forms of property ownership, experiment with more communal forms of land management, and engage in other political efforts for food systems change". After all, as Zunino (2014) explains, social changes are triggered for individuals from a local level in different resistance nodes. As mention by Elden (2007, p.105) "there is a politics of space because space is political". During their participation in the groups, the members became aware of the power differences, the food system's problems, and the ecological and economic problems. In allotments, members are activists because they promote a new idea of society and food to the community.

Many UAPs perceive neoliberalism as the main responsible for the social, economic and social problems that Chile is facing. The members see the preference for individualism over collectivism, which means erasing the humans' essence, which is to be social and collaborative with others. A characteristic that they work hard on changing, as allotment cannot be maintained by just one person and need the collaboration of all members to carry on the work. However, the causes and the continuity of capitalism is not questioned, and the system continues because it has been normalised in people's everyday lives and decisions. People are convinced to buy the latest products even if they are poor to reach a certain social status, resulting in an impoverished and segregated population. Pérez (2019, p.84), similar to what was explained in Chapter 7, mentioned that "the poor of neoliberal Chile work overtime, have two or three precarious jobs and go into debt in retail companies to obtain loans and credits with abusive interest rates". Groups are aware that the only alternatives for changes come from themselves, from an empowered community. Despite their small scope, they could impact the population members because their allotments work as a place for critical reflection. However, there is a fine line of popularity where allotments can be used as a resistance act against the system or as part of the system to generate profit, where food access or social values are ignored for a commercial

interest. Urban agriculture is used even as resistance to the educational model by allowing people to learn about practices, activities, and problems that are not taught in the educational system. In that way, it provides an alternative to unravel problems and think in solutions outside the state curriculum. Topics related to water rights and seed ownership that are relevant in Chile are hardly mentioned in formal education or media but are covered and explained by social groups and UAPs. Allotments became a platform to talk about social issues, a space of connection of discourses and networks that generate ideas and connect people, an alternative to the socioeconomic system, and a space for questioning what has been taught. Understanding the urban environmental problems could help to reaffirm the relevance of participative mechanisms. After all, participation and education do not erase the conflict, but it makes them explicit so groups and organisations can talk about them and reach a consensus to form good governance.

8.5 Chapter Conclusions

This chapter provided context for some of the problems caused by neoliberalism that UAPs identified in the previous chapters. This chapter's main argument is that urban agriculture provides an alternative to the prevailing neoliberal and governance discourses rooted in Chilean society. The first finding of this chapter is that urban agriculture in Santiago is a mix of the characteristics associated with the literature about the Global South and the Global North. It has elements of indigenous and rural knowledge in the allotment's practices and a social and environmental concern due to the problems caused by neoliberalism. UAPs propose a complex discourse to fight for social cohesion and environmental awareness that recognised Santiago's local problems. The groups encourage local knowledge generation that includes traditional experiences and modern problems relevant to the inhabitants. In contrast, state and private actors' plans and actions are led by technocrats who are unaware of the situation of marginalised communities and are often disconnected from the community. UAPs mixed characteristics allowed them to add more layers to their work in the territory to include the generation of sustainability awareness, provision of green spaces, formation of social cohesion, a vindication of traditional knowledge and recognition of indigenous and rural communities. They recognise the effectiveness of

advocating for addressing local problems using local methods instead of replicating solutions from areas that do not recognise the neighbourhood's problems and history. The second finding is that urban agriculture unravels broken connections in the civil society-state-private sector relations. Although UAPs consider that connections are essential to their work, they have difficulties maintaining relationships with the state and the private sector since they all have different positions about society and the environment. The basis for forming connections between actors is based on a deep-rooted neoliberal system that benefits the state and the private sector over civil society. UAPs face this bias when the system prefers individualism, self-interest, personal gains and power imbalance, while they prefer community, partnerships, horizontality and solidarity. Connections under these differences societal and system perspectives are challenging to create and to maintain over time.

The third finding shows that while neoliberal practices and actions limit UAPs work in the territory, UAPs provide alternatives to confront neoliberal practices and actions. Urban agriculture is considered revolutionary, conflictual, and threatening for some actors. Their resistance to following the neoliberal logic, their proposal for alternative ways of working and approaching society, and the preservation of their work ethic allow them to navigate a system that does not share their ideologies and have different perceptions. UAPs actions may not impact neoliberalism enough to produce changes in the system, but they provide alternatives and show a different approach to society that offers a reformulation of neoliberalism's ideas. UAPs main impact in the production of discourses and knowledge is to show the community that there are alternatives and that neoliberalism is not the only way of seeing society. When changing the community, groups are slowly and at a low level changing the market-oriented system's deep-rooted ideas. They are also demonstrating that horizontal connections with civil society and local actors strongly impact the community because it addresses the population's problems rather than a few groups' economic interests. Finally, the last finding is that planting vegetables, while simple, has significant social, environmental and personal impacts. Urban agriculture is more than working the land and producing vegetables. The use of abandoned public spaces to establish the allotments is already a statement of the group's perspective of land use that should be safe and for the community. Their interest in including civil society, state and private sector actors in their networks demonstrates their intention for horizontal, trustworthy

and honest relationships. Their idea of relationships has more governance elements than the actual governance in Chile that focuses on the corporatism of the state and the private sector. Their inclusion of lay knowledge shows their interest in reconnecting lost ties with an essential part of Chilean culture, indigenous and rural communities. UAPs are more than just allotments. They are a movement of actors that slowly and silently fight for changes by doing something they are passionate about, planting plants and reaping connections.

This chapter completes the three research sub-questions: *What are the roles and networks of the different actors involved in urban agriculture in Santiago? What are the main discourses and story-lines co-produced by the actors involved in urban agriculture and their relation to neoliberalism?* And *How have the networks and discourses of urban agriculture projects in Santiago been affected by neoliberalism?* This chapter's findings reflect the discourses that support the results obtained in the previous chapters. Here, urban agriculture shows how from difficulties, they are maintaining a network that reaches actors throughout the region. UAPs' work is hampered by legal limitations and deep-rooted relationships ideas in which they are barely included. Despite the challenges, UAPs are formed from the deep interest of members to continue educating people, showing current social and environmental problems and being contrary to neoliberal ideas and relations. The next chapter will answer the questions that guided this research and reflect on theory, methods and policy.

Chapter 9. Conclusions

This thesis has explored the co-evolution of emerging UAPs with the networks and discourses of actors with respect to neoliberalism. Through a single case study with embedded units of analysis, this thesis has unveiled the particularities of the structures of governance networks of actors involved and discourses that emerged from UAPs in the context of neoliberalism in Santiago. In doing so, attention has been paid to understand the actors, reasons and motivations of the network structures and discourses.

The thesis has sought to understand the role of emerging UAPs through the networks and discourses of actors facing challenging social and environmental situations in relation to neoliberalism. This thesis argues that the emergence of UAPs has built a network of socially and environmentally conscious actors interested in working in the city despite the challenging conditions produced by neoliberalism. Despite their small scale, the networks are forming governance networks with actors that share common interests but vary in strength, trust and reciprocity, whether formed with civil society, the state or the private sector. Thus, the discourses, knowledge and experiences produced and circulated among groups emphasise the construction of common ideals related to resistance, empowerment and community. Understanding the role of UAPs in Santiago requires reflection throughout the last four chapters of this thesis on the governance network structure of UAPs and the discourses that emerge from the groups in a neoliberal context to challenge the socioeconomic and environmental setting for the development and maintenance of the allotments. This chapter focuses on

answering the research questions that guided this research and presenting the final reflections of the thesis.

9.1 Research questions and findings

This section responds to the research questions that guided this research. The first part of this section addresses the findings on the governance networks formed by UAPs in Santiago in the context of neoliberalism. The second part reflects on the discourses and story-lines co-produced by the actors involved in urban agriculture and their relationship with neoliberalism. The third part reflects on the effect that neoliberalism has had on the networks and discourses of UAPs. The final part of this section uses the arguments offered to answer the three sub-questions to answer the general research question.

What are the roles and networks of the different actors involved in urban agriculture in Santiago?

This section discusses the findings of this thesis regarding the roles and networks structures of actors involved in urban agriculture in Santiago. It is pertinent to recall that governance and networking offer a simpler alternative when dealing with complex interactions and solutions for specific and unique contexts than standard bureaucratic approaches (Giest, 2015; Konijnendijk van den Bosch, 2016). These networks can connect actors by building trust and commitment through the transfer of knowledge about the environment. For this research, such networks were investigated to fulfil the objective investigated here. As discussed in Chapter 3, networks are an essential element that enables links between actors to achieve common interests and goals (Yang, 2007; Aarsæther et al., 2009; Conteh, 2009; Hysing, 2009). They allow new forms of participation in decision-making by including various actors to manage the fragmented, rigid and unequal system (Sørensen and Torfing, 2005; Blanco et al., 2011; Sørensen, 2013). Moreover, it does so by circulating information and resources through nodes and ties. However, as Heitmann (2014) mentions the characteristics of urban agriculture that allow the formation of networks in Santiago remains unclear. This section discusses the findings on roles and networks in the Santiago context

The network proved that UAPs are interested in involving various actors from different sectors to pursue their social and environmental goals. The type of relationships and level of trust and support varied depending on the actors involved and the common interests and areas. One of the most interesting parts of the network is that urban agriculture proposes a horizontal structure that is less common in formal relationships in Chile but is getting more popular within grassroots organisations. UAPs adopted this structure to engage different members and local and higher-level actors in a more egalitarian space to discuss things, reach agreements, circulate resources and information, and form partnerships with less room for exclusions or censoring. Some UAPs have physically adapted their premises so that their meetings have a circular sitting space where members and participants, senior or junior, can speak at the same level. Also, the groups have adopted a form of leadership that is perceived as effective for the horizontal structure. UAPs consider leadership relevant, but they do not rely on one person to build relationships, develop trust and form cohesion among participants. Instead, they prefer to rely on a core of members to help coordinate and move towards specific objectives, or in a few other cases, they prefer to have the whole group decide and speak out in assemblies. There are specific situations where the groups are small, and the only recurrent members become the leaders because there are no more people involved. Despite their intentions to maintain this type of organisation with their network members, this does not always reproduce when it comes to some private sector or State actors, who are more accustomed to a top-down approach, influenced by corporatism and with less participation of grassroots organisations. In any case, the presence of alternative forms of organisation that promote the inclusion and not the exclusion of actors proves a healthy society where these organisations can exist without being repressed.

Urban agriculture in Santiago has shaped a different type of governance according to the UAPs involved. Although the environmental and social objectives of the groups are homogeneous, the type and number of connections established varied profoundly. UAPs form governance networks based on their interest in socialising and providing a space for the community to be included and involved in their activities. The selection of actors to include in their networks stems from this need to provide a place where people can return to the neighbourhood and community, which has been lost due to the different political factions that have slowly changed people's relationships with

space, time and neighbourhood. This resulted in some groups excluding themselves from governance arrangements due to political, environmental or economic differences with some actors, while others felt excluded due to their orientation. UAPs can involve various actors of different levels and interests. However, most of those connections are sometimes limited to one-off interaction and activity, which are insufficient to form network governance due to the frequency of interactions and unequal position with other actors.

Some connections seem easier to establish and use than others. Those formed within and between UAPs located in the same municipality has shown more frequent and lasting relationships. It was commented in the groups that there are significant floating participants who join some of the activities but do not remain as frequent members because they commute from other municipalities. Since UAPs understood the difficulties of forming more extended and very close connections with UAPs located far away and aimed to produce local impacts, they preferred to approach local groups and neighbours. Therefore, this connection with organisations or UAPs in distant municipalities was weaker, sometimes for specific activities, and could fade over time. However, because of the type of interactions that the groups maintain, there is always the opportunity of UAPs coming together at meetings, events or being invited to speak at workshops in other allotments. The cultural and social capital that is shared within the groups continues to exist.

The type of actors related to urban agriculture clearly shows the social and environmental objectives of the groups. The urban agriculture network shows that UAPs have no connections with actors in the food market, food production or food distribution. None of the groups mentioned relationships born to sell food or deliver food to some organisations. They explained that their objective was not food production, and their network reflects this. In Santiago, the networks are mainly represented by UAPs from different municipalities. Neighbours and people from the community are interested in the workshops and activities offered by the groups. NGOs, foundations, and civil society organisations working on environmental and social issues interested in forming connections and seeking support. Local businesses that support the work of UAPs despite working in areas unrelated to the allotments. Municipal departments that provide workshops or other resources to the groups. The

State, through some funds granted by the groups. Furthermore, some larger companies have partnered with some UAPs and provided them with materials or funding to develop their projects.

The integration of actors to the networks and the roles they have to play depend on the needs of UAPs. While some are very interested in establishing connections with different actors addressing various issues, others are less interested and more isolated. From the position of UAPs in the governance network, the actors collaborating in the networks fulfil different roles. The inclusion of the community is the most natural action as it is for them that the allotments have been formed. It is also the members and participants of the groups who support them with knowledge, experience, donations and visits during activities. The community members are a key element for the allotments to be formed and maintained over time. NGOs and organisations join the network because of the issues that interest UAPs and the areas they want to influence. However, they all respond to some social and environmental criteria that make them more connected to specific groups, while some approach educational organisations, others approach social or health groups. The private sector, mainly the local companies, is integrated due to their location in the neighbourhoods or municipalities. Their role is to provide financial, material or information resources. In some cases, they offer support in some activities, which is important for the groups. The State is integrated as a response to that need of some UAPs to connect with as many actors as possible in terms of sustainability and community. Their role is often controversial, as not all groups agree with their integration, but they provide technical support, information, and sometimes material for the allotments.

What are the main discourses and story-lines co-produced by the actors involved in urban agriculture and their relation to neoliberalism?

This section discusses the main discourses and story-lines of the actors in relation to neoliberalism. In the previous section, the network structure of urban agriculture in Santiago was discussed. Networks not only mobilise resources among actors but also circulate ideas, discourses, story-lines and knowledge. Indeed, for a network to function properly, actors must be willing to work together and exchange similar discourses. The main discourses and story-lines will be explained here.

UAPs produced different discourses and story-lines in relation to the different areas of their interest. The main discourses generated are social, environment, knowledge and territory. They represent their purpose and interest and their perspective on society, especially neoliberalism's consequences on people's lives. UAPs have a strong opinion on the effects of neoliberalism on different aspects of life in cities and use their discourses and their work in the garden as their form of protest and awareness-raising. UAPs shared the story-line regarding the social aspects that urban agriculture in Santiago is not for food production but social concern. The groups have emphasised with their discourses and connections that their goal is not to develop an allotment to feed the community, their workshops hardly address food production issues, and their connections do not include organisations related to it. Indeed, their discourse influences the governance networks formed by UAPs. Connections are not formed with supermarkets, neighbourhood food stores, or cooperatives where produce is sold, but with environmental and social groups that help them promote discourses and knowledge about the problems of neoliberalism. Thus, they produce a different network from other cities or areas that use urban agriculture for productive purposes. This story-line is closely related to the reason for creating the projects and their permanence over time in a neoliberal context. UAPs were formed as a platform or excuse to generate discourses, involve the community and generate social connections. The allotments in Santiago are created for the community, for those who want to interact with others and create communities, for people who want to avoid pesticides, want to eat something healthily, and want to change the environmental narrative. This contrasts with the usual reasons mentioned in other countries in the Global South, or even with the emergence of allotments decades ago in Chile. However, as society has moved, so have the motivations of grassroots organisations present in cities and the solutions for perceived problems.

The story-lines produced mentioned that urban agriculture creates community and emphasises empowerment in the community. It was mentioned that these spaces for reconnection are born out of dissatisfaction with the current system, which, according to the groups, have influenced individualism and apathy among the population. UAPs perceived that neighbours are disconnected from each other, that people are not included in decisions relevant to the environment, and wanted to offer a space that would welcome everyone who needed to connect with other people or nature. They

saw the changes people experimented with during the allotment activities and workshops. The other story-line produced refers to urban agriculture as a form of resistance against the capitalist system and neoliberalism that controls consumption and promotes individualism. This is produced as a response to the groups' dissatisfaction with the current system. Some groups have a strong posture against the impact on society and the environment. They see urban agriculture as a form of passive resistance in which they oppose the doctrine of neoliberalism through education and permanence in space.

In terms of knowledge, UAPs produce the story-line that allotments are sources of knowledge rather than food producers. Thus, the groups recognise the potential of the gardens to generate social connections between members and produce and to reproduce knowledge and expertise through the network established between actors. Interactions in the allotments foment the communication throughout activities and may include the flow of knowledge among actors. In addition, on the previous statement, UAPs promote the idea that people with sufficient knowledge on a topic can be recognised as experts to integrate and welcome those who do not have professional expertise but have experience because of their previous work in the allotment or because they have agricultural traditions. They have also promoted the story-line of indigenous and rural communities as sources of traditional knowledge. Incorporating these groups into the allotments serves to honour their tradition and wisdom rather than to accept that every practice they promote is perfect. UAPs value the tradition surrounding these groups and seek to incorporate them while respecting their knowledge.

Regarding the environment, UAPs have definite ideas about the role of each actor in environmental awareness, and these ideas frame their discourses and behaviours. The groups believe that civil society is the main actor in raising awareness because grassroots organisations lead some sustainability conversations. However, this actor has contradictory ideas because UAPs have seen increased awareness and motivation resulting from their environmental education, but most remain uninformed about environmental issues and how they can support them. UAPs believe that the private sector uses environmental actions because it is popular and could increase its presence as a green company in the market. Indeed, the groups have seen how companies have

branded items as green, natural or organic, but they are unsure if it they were created out of real concern or because it sells. This is especially true when groups are aware that some companies continue their polluting practices but rebrand their businesses as green to attract more buyers. Some UAPs have a complicated relationship with the municipality due to past interactions and believe that the State supports the concept of urban agriculture as it is a popular topic that most people accept. However, some groups do not trust the state due to its continued support for the neoliberal system and the lack of legal, economic, and political evidence to prove its environmental support.

And finally, in terms of space, UAPs promoted the story-line that urban agriculture rethinks space. The groups are aware of the constraints of the allotments on space. They recognised the lack of maintenance of the spaces and decided to recover the areas, giving them a different purpose, giving them back to the community, because in some cases, those empty lots were a source of infections, danger and disuse. Most of the gardens that used the public spaces did so in unprepared areas, landfills or areas used for crime. For those who worked to transform the spaces, despite conflicts with municipalities or the private sector over the legality of the occupation, the allotments changed the perception of the space and gave them a new meaning. For many, the greatest impact was in the actual presence on the land because, since for them the use of the space is one of the greatest forms of protesting.

How have the networks and discourses of urban agriculture projects in Santiago been affected by neoliberalism?

Neoliberalism strongly influences the networks and relationships formed in Chilean society due to its application in all areas of life. Urban agriculture networks and discourses have been affected but have also reacted to the neoliberal practices that influence their work. Here I reflect on the networks and discourses affected and how urban agriculture has responded.

UAPs networks and discourses have been affected by the influence of neoliberalism in Santiago. This research found that UAPs have a critical and sometimes negative perception of the state and the private sector due to their rigid structure and exclusivity in decisions. As such, they have difficulties forming networks with them due to

differences in the perception of society and the environment. Consequently, UAPs chose to be more cautious with the state and involve local businesses within their networks. The influence of neoliberalism also motivated them to work in a horizontal structure with actors and maintain connections, opting for an alternative to the usual top-down approach that is common in Santiago society relations. An important change in urban agriculture is that they try to work with the difference. The groups explained that they work with different groups trying to establish an open space where different actors can interact; however, they are selective in whom they connect with as they need a common ground of interests, which is usually the shared vision regarding society and the environment. The groups explained that large businesses with unclear sustainable approaches or that pollute the environment are not accepted. They are also not interested in working with municipalities because of the difference in political positions.

UAPs discourses were affected in the sense that most of the story-lines and ideas that groups wanted to communicate were related to raising awareness, talking about issues that people were uninformed about, advocating for the preservation of places, educating about legal causes, or using the workshops as a means of communicating and circulation of discourses. Even the selection of social and environmental discourses over food discourses was shaped by the need to advocate for a more relevant concern. UAPs felt that it was their responsibility to address issues that the State was not addressing, and to do so, they had to cover the problems of neoliberalism.

UAPs felt that individualism, apathy and lack of time caused by the neoliberal system are major problems when people work together, as they impede the formation of communities. As a result, people had less free time to participate in activities such as urban agriculture, and groups had to motivate members to keep working by offering them a space for relaxation. This affected internal connections and limited relationships in the networks, as actors and members, could not continue working at certain periods and had to stop participating. Despite the limitations, UAPs noted that the allotment provides some spaces for people to connect. Connections are formed not only in the sharing of resources but in the conversations and camaraderie generated during the work in the allotment. The groups explained the importance of working

together and sharing food to create spaces of conversation and connections between participants and guests.

Allotments offer people an alternative to the individualist and competitive perspective established by neoliberalism in Chile, one more connected to the community and the environment and even to old traditions that have been ignored. It proposes actions that the groups consider contrary to neoliberalism, such as circular economy, voluntary actions, generosity in giving away food production, reciprocity in helping other UAPs. Groups also respond to neoliberalism by using space and changing the land use objectives. Despite the illegality and opposition from the municipalities, UAPs consider the use of space as a claim to a space that should belong to the community for the generation of positive impacts on the community. That is why the many allotments that are emerging from companies as a product are considered of lesser impact by the groups since those are not formed, oriented and maintained by the community.

How has the emergence of urban agriculture projects in Santiago de Chile co-evolved with the networks and discourses of actors with respect to neoliberalism?

Urban agriculture emerged in the literature after the dictatorship as socially and environmentally oriented to form a community and educate people. However, what is not mentioned in the scarce literature is its actions and how it is carried out. The integration of neoliberalism into Chilean society produced changes at different levels, affecting the relationships between the actors and the way in which society was conceived. For UAPs that emerged in democracy, most of the social and political changes were implemented, and they had to face the consequences of the decisions on society and the environment. Consequently, UAPs turned an activity traditionally used for food production into a platform for the formation of discourses of resistance and opposition to the neoliberal system. While decades ago, urban agriculture was used to generate food and income for low-income families, today, urban agriculture concentrates its efforts on spreading awareness, educating through workshops, and generating local and small social and political voices. For many UAPs members, the allotments are not simple allotments that have vegetables and produce food that is then donated, but a platform to showcase a new proposal to organising and a tool to fight

for something bigger. At the lowest level, it enables conversations between people who otherwise would not talk to each other; at the highest level, it proposes an alternative community-based socioeconomic system. Urban agriculture becomes a lens through which to view these broader aspects of neoliberalism in action.

One of the advantages of urban agriculture is that it opens the space for people to physically participate in the activities and invites them to rethink their current knowledge about the environment and society and question what they already know. Society under neoliberalism tends to be rigid and homogeneous as it mostly allows for the active participation of the state and the private sector, and most actions are coordinated to be moderated by the market. UAPs diverge from most of these principles by offering open spaces, integrating actors from different sectors and locations, and preparing their activities to accommodate the country's main problems. However, UAPs have their complications, and it is not a perfect activity. Ther are groups that use spaces without permission, and that, despite the good intentions, continue to take and use a space that was not intended for that use. They also complain that they are excluded from some relationships, but they also exclude themselves in because of political or personal situations. |

Allotments are the epicentre of a small movement. They are completely heterogeneous. The type of discourse they present and the reason they started and continue with the allotments are somehow similar, but they differ in the reasons for forming the allotments, the way they obtained the land, the sources of their funding and the connections they make. Some groups have no connections because they choose to; others have many connections because that is their vision of society. Some establish relationships with the state and the private sectors, and others prefer to associate only with civil society. For the members, the allotments have different meanings. For some, it is a platform. And for others is a protest or an opportunity. Interesting, all of this comes from a single act, that of planting and then obtaining later something as familiar as food. However, that whole process is more complex and carries more conflicts behind it. The planning process is where all the ideas and discourses begin. During that process, the groups question their activity; they question the production, market, and environmental systems. They question everything around the allotments and even the allotments themselves.

Contribution to the literature

Urban agriculture is a topic that has attracted the interest of many researchers during the last years. However, there are still many unexplored areas for further research. Therefore, the results of this thesis are a reference for understanding the modern agricultural movement in Santiago in a neoliberal society. The ideology of neoliberalism has permeated the public polities of many governments at different levels of influence in current times. However, it is in Chile where it first took form and shape, being adopted during the dictatorship and integrated into the Constitution, and therefore, the consequences are the strongest. This research provided a space for UAPs to express their perspectives on neoliberalism and the conflicts they face due to the participation of the market in the political sphere. My aim is to contribute to this debate, specifically by shedding light on the role of discourses of social cohesion, knowledge and territory in urban agriculture in a context of neoliberal urbanism. Through the analysis of UAPs, I offer an interpretation of the role of actors and discourses in the development of urban agriculture in Santiago. Indeed, this research shows the changes that networks and discourses faced due to the disruption of neoliberalism and political changes in society. Urban agriculture is no longer formed for production as before and during the dictatorship, but to form social connections lost due to individualism and lack of time and raise awareness in society about the importance of the environment. Indeed, the identified story-lines of UAPs are related to resisting neoliberalism, empowering people, creating community, spreading knowledge, including indigenous and rural communities, and refining the definition of space. All story-lines are reframed and affected by the neoliberal society, which aim to offer an alternative discourse and line of action to the current political and socio-economic system, which oppose the purely productive discourses and story-lines formed in other countries. Similarly, in many cases, networks aimed to involve civil society and local actors rather than the private sector and the state, fearing that their allotments could be controlled by rules and top-down management, limiting their ability to express their morals and values. These results are valuable information for researchers interested in understanding urban agriculture in the Global South or the consequences of neoliberalism in UAPs discourses and networks.

Urban agriculture is not a generalised activity and does not behave in the same way in all geographical locations. Therefore, it is necessary to recognise the value of having specific information on urban agriculture in Santiago, a city where the topic has been scarcely researched and characterised in the literature. It is important to contribute to the literature with less researched study cases that contribute valuable information to the construction of the urban agriculture literature, which can be used to compare and contrast the uses and objectives of urban agriculture between different areas. For other Latin American researchers, this thesis demonstrates that not all allotments are created with a productive intention and that indigenous and rural knowledge is still alive and respected. Latin American countries share a common colonial past, the repercussions of which are still visible in the appreciation of communities and their acceptance as important sources of knowledge. Indeed, not only do most of Latin America share the same language, but they also share an indigenous vision of society and nature that are common among the countries and have been shared and adapted to each culture. The countries also share an unstable political history marked by dictatorships that deeply affect the communities. As many countries in Latin America adopted neoliberal practices in their government, this thesis gives insights into the consequences of heavily relying on the market and the absence of the State in politics and society. As part of their historical heritage, Chile shares a colonial background and a cultural and political heritage with other Latin American countries, so the study results are valuables as a reference of the phenomenon. This study case is proof that the differences in urban agriculture practices and objectives are less pronounced than those mentioned in the literature, and research in the Global South should be developed without biases or constraints that limit the expression of its multifunctinality. In this way, I am providing knowledge about social connections and discourses generated by UAPs from a Latin American case that will benefit researchers interested in urban agriculture in the Global South, as this thesis serves as evidence of the local concerns of groups in that specific location, revealing the broad and varied characteristics of urban agriculture.

The researches in urban agriculture in Chile is very limited, and few works refer to it in recent years. During this research, only two books and four bachelor's and one master's thesis were found that addressed this topic, and they were mostly descriptive and historical, identifying the characteristics of the participants and the reasons for the

development but without delving into the connections and roles of the actors. This lack of research makes the finding of this research highly valuable for its originality and contribution to the literature. Urban agriculture is a rich topic with many angles of analysis; therefore, limiting the information to only one area produces a very partial picture of UAPs in Santiago. The increase in the number of allotments in the last decade due to the current societal problems shows the importance of understanding the discourses and networks of the participants of these still barely known movements to discover the true collaborative networks in Santiago. There is a vast literature about governance and knowledge on urban agriculture that is mainly produced and focused on the Global North and Western world that does not fully reflect the experiences of countries like Chile. Indeed, governance does not behave the same in all countries, showing differences even at the city level. In Chile, governance has been influenced by a public-private partnership and by poverty, segregation and social disarticulation caused by the strong implementation of neoliberalism during the dictatorship. Hence the importance of analysing local neoliberal governance that shows the networks of urban agriculture at the Santiago level, including these local circumstances that differ from the examples in the literature but reflect the behaviour of governance in Chile.

Chilean society is accustomed to a vertical and rigid structure of decision making and governance in which the state and the private sector are the main actors involved in the decisions and policies. Most alternative structures have emerged from social movements, NGOs, and foundations dissatisfied with the system and its lack of opportunities for participation. This research shows that urban agriculture follows the same pattern and uses a horizontal structure with various actors with common ideas. The presence of relationship dynamics different from the established corporatism, the hierarchical, top-down approach more common in government make the political environment richer. Despite the limited scope and scale of UAPs networks and relationships and the low impact, the evidence of alternatives to the main structure is of great relevance because it shows that it is possible to offer alternatives in a country that had its civil society repressed and persecuted for years due to the different vision of society. This research contributes to unravelling networks and discusses the reasons for their formation, which has hardly been addressed in the literature of the Global South. It provides valuable information when trying to understand the whole picture

of urban agriculture, as descriptive and quantitative information only unravels one part.

The contribution of this thesis concerns the use of governance networks and discourses to analyse urban agriculture in Santiago. The thesis objective of understanding relationships and discourses required the use of a combined set of methods that would improve knowledge of the phenomenon under study. SNA by itself provides information on networks and nodes but is limited in terms of the content of networks and the reasons for their formation and maintenance by specific actors. As an interpretive approach, discourse analysis complements and explains the information obtained by the SNA, providing a more robust analysis and results to explain urban agriculture in Santiago. This use of a combination of interpretative and descriptive methods in the thesis provides a richer picture of the networks of urban agriculture, the actors involved, the power dynamics and the reasons for it all. SNA is valuable in identifying the central actors in the network and the missing connections, while discourse analysis endows the network with meaning, as by knowing the reason of the actors involved in urban agriculture, we can interpret the network findings with greater depth. This allows us to integrate knowledge about the position of actors in a given network with their use of a dominant discourse. Thus, the position can be linked to content and vice versa. In particular, the use of Hajer's discourse analysis with SNA places the research and findings within a given social context in which story-lines and coalitions are essential to understanding the origin of discourses and the purpose of their use by actors. Indeed, it is more than a linguistic analysis in which the researcher looks for feelings, signs or words, but rather a general understanding of the phenomenon in its context with the story-lines as their main source of analysis. The main contribution to the literature of these mixed methods is that they allow more interpretative data to be obtained from the more descriptive content produced by the SNA and thus find the networks' meaning by understanding the dominant discourses and actors who use them. It would be important to expand the descriptive literature to understand the forces leading the movements and the discourses being pushed in urban agriculture research.

9.2 Reflections on policy and planning implications

The results of this research are of great importance for the development of future policies and planning strategies at the municipal, regional and national level considering the differences in objective and interests of urban agriculture in specific regions since Santiago is only a specific case that does not reflect the behaviour of urban agriculture in other cities and regions of Chile. It is relevant for policymakers to understand the actors participating in urban agriculture to whom the policies will be directed. It is essential to define information about land ownership, the form of contracts, type of financing or support, work, goals, and interests to form a strategic vision that promotes and protects its development. Urban agriculture in Santiago and Chile is developing in many ways and with the participation of many actors. It is known that society is facing different forms of political unrest, environmental challenges, social disconnection, and policymakers need insight and deep knowledge to guide them in proposing public policies relevant to UAPs. UA can contribute to cities and regions, but its integration into urban and territorial policies is not without conflicts. As seen in this research, urban agriculture faces some complications in the policy and planning of its implementation. Municipalities and policymakers need a complete vision of the characteristics of urban agriculture, its performance in the territory and with the community, the potential allies formed through networks and the impact on social actors. It is true that some of these UAPs are seen as rebellious due to the appropriation of public land and are poorly recognised by the government and often under the radar as an underground activity despite their success within the community and their informal networks format. This is precisely why recognition and legitimation by formal institutions are so valuable, as it allows them to integrate the urban fabric in a secure position. From that stance, municipalities and policymakers need to recognise the potential of urban agriculture to contribute positively to the community and the environment through supportive policies that legitimise and support its work in the territory. However, recognition will not have a great impact if it is not accompanied by real rules and funding that help legally recognise the projects and financially and technically support their work. Otherwise, UAPs will continue to experience the same problems as today, as designing cities without taking UAPs into account will prove insufficient. The land use approach is a very controversial need for

many groups, and the current land use planning is simply not designed to address these such issues in a way that allows the allotments survival.

UAPs have shown through their horizontal and multidimensional networks a framework that could serve as an inspiration for municipalities to generate collaborations and synergies to reach out to actors, ongoing programmes and funding. Municipalities and regions could promote collaborations and interactions between actors and programmes in policy or strategies bodies to enhance support for UAPs. The impact of urban agriculture reaches different areas of society and policymakers need to integrate those different aspects involving health, employment, education and land use. It is relevant to include the variety of knowledge and areas present in urban agriculture and food production. Strategies and plans must capture that diversity. Modifying zoning codes to allow food growing activities and urban agriculture land use zones could provide spaces for groups to garden and avoid the appropriation of public spaces; recognising the seasonality of allotments, which are not temporary activities and require development strategies; and facilitating access to land and removing restrictions on UAPs for their work. These actions must be fairly adapted to each region's urban agriculture characteristics since generalisation could allow the market to be included and the private sector to appropriate land for their own plans and impede the social and educational objectives of UAPs as in the case of Santiago. However, this does not mean entirely excluding the private sector or for-profit groups but moderating their inclusion to promote grassroots initiatives with social objectives. Strategies would need to be shaped considering the diversity of objectives, power relations and resources of groups and networks. Indeed, since food production is not the main objective in Santiago, plans and projects should consider opportunities for social and educational interactions. Municipalities have formed networks with different actors that UAPs could take advantage of. Since many UAPs are unknown to the public and their permanence in the territory is uncertain due to land use and members and resources vary over time, municipalities could offer their networks to the groups to provide additional support and allow the private sector to invest in the groups. This promotes the development of mutually respectful relationships between UAPs, the private sector and the state to benefit the communities. After all, UAPs have connected at a local level with neighbours, businesses and local organisations. They can function as sources of access information to some part of the community.

UAPs creation and educational practices are a great channel for empowering communities in urban governance. The provision of information on environmental and political issues, plans and projects through events and their digital platforms keep members and followers aware and informed. UAPs noted the lack of platforms for participation and inclusion of civil society in decision making. These allotments reclaim the community by incentivising their participation in networks and with actors. Due to their work in the allotments, people are more aware of the problems related to land use, water and financing. They reach out to municipalities for help and are aware of actors who promote similar ideas and share common goals. The presence of grassroots organisations with horizontal participation brings significant value to the social fabric and a powerful statement to society that relies heavily on vertical organisations. For many members, this is their first experience with this type of form, where they have the opportunity to speak to an interested audience and offer suggestions that will be adopted. Citizens are increasingly aware of the role and responsibilities of social actors and, therefore, demand that their authorities and private actors act according to their responsibilities. They question the participation of municipalities in environmental actions in their neighbourhoods, ask for specific activities for their communities, protest for the protection of allotments, and request support for their activities. Therefore, civil society should have more real participation in policies and planning and not just decorative participation to comply with some specific requirements, especially after the decades when their socials visions, political positions, and participation were repressed.

It is relevant to note that civil society and UAPs members have the opportunity to call and demand the government and municipalities to respond to their international agreements, especially the one with the United Nations related to the SDG, to which the country committed itself. Chapter 2 mentioned some of the benefits that urban agriculture can bring and all the areas in which it can contribute to meeting the country's goals. Groups could demand that their authorities act on the voluntary agreements that Chile agreed to comply with and include urban agriculture in policies and plans because of its impact on SDG 2 (zero hunger), SDG 3 (good health and well-being), SDG 11 (sustainable cities and communities), SDG 13 (climate action) and SDG 15 (life on land) as demonstrated in this research. The path towards urban sustainability implies the involvement of multiple actors to participate in decisions.

The current political system does not allow for deep participation of civil society due to its inherent bias towards the private sector. Strategies should be aimed at improving cities and addressing the social concerns of residents. With the inclusion and collaboration of different actors, especially the community, the government will address different SDG 11 targets and address multiples concerns related to the environment, green areas, participation, air quality and waste management. Municipalities could implement plans of collection and treatment of organic waste to provide compost and fertiliser to UAPs and community members who require it. They could promote the production and consumption of fresh food and kids' participation in allotments and workshops. The state owes a debt to civil society. It is its responsibility to facilitate the participation of civil society in activities that promote the reestablishment of social structures that have been fractured as a result of neoliberal governance and excessive market power in decision-making. Urban agriculture is an opportunity for the state and other actors to settle their debts and promote an activity that fosters community, empowerment and social networks, all of which have been lost for many years.

9.3 Closing remarks

Chile has experienced a complex and profound change in social movements and civil society participation in the last two years. October 2019 saw a social outburst with massive demonstrations and riots that originated in Santiago and spread to all country regions due to a Santiago subway fare increase, but dragged discontent over corruption, cost of living, privatisation and inequality. Between October 2019 and March 2020, Chile experienced the worst civil unrest since the end of the dictatorship in terms of the scale of the protest, the cities involved and the number of protestors. People of all ages and backgrounds took to the streets to protest in every city of the country, showing their discontent with a social and socio-economic system that did not provide dignity or equality, accentuating their dissatisfaction with the pension, education, health and political systems. The strength and impact of the protest took the political sphere by surprise, which was unaware of the level of community dissatisfaction with the current socioeconomic system. The massive demonstrations led to a referendum in October 2020 that asked whether to draft a new constitution and

the method of doing so, 78% agreed to draft a new constitution, and 79% opted for a Constitutional Convention. In May 2021, for the first time, Chileans were able to vote for the 155 members of the body created to draft the constitution since the last one was written during the dictatorship by a small number of people. The particularity of this convention is that it was designed to guarantee gender parity with equal representation of men and women and that 17 reserved seats were established for the ten official indigenous groups. The results were considered a surprise and a complete reordering of the political system established at the end of the dictatorship in 1990. Most of the elected deputies were independent candidates organised on new lists actively involved in defending the territory and the environment. The big losers were the traditional political parties, especially the ruling alliance and the main centre-left alliance.

In the midst of that unrest and revolt, UAPs in Santiago became centres of territorial gathering in the neighbourhoods and points of conversation about social and environmental problems. As most of the groups have been addressing the consequences of neoliberalism on people's lives, they opened the allotments to initiate conversations and reflections with the local community on social dynamics. They also increased their collaboration with other actors to produce workshops and activities addressing the conflictive situation and discussing common points of dissatisfaction. Similar to the student movement of 2011, new gardens began to emerge in this period through neighbours talking to each other and sharing common ideas. It was common to see these new gardens portrayed on television, in newspapers, and internet posts.

COVID-19 produced another change in civil society. Amidst social unrest and after months of protests in the streets, the pandemic turned into a time of restrictions until today (July 2021). With the confirmation of the virus in March 2020, the government established different measures to restrict the spread of the virus by implementing a night curfew throughout the country. Unlike other countries, the government opted for local quarantines in cities or neighbourhoods. Considering the total population, Chile had one of the worst outbreaks in the world. The number of positive daily cases and death has not decreased much since the beginning of the pandemic, and has increased during the last months surpassing the cases in the initial wave despite the rapid vaccination programme due to the early relaxation of restrictions to allow mobility for vacations and to work. The consequences of the protest have accentuated the impact

of the pandemic. Some protests have erupted at different times of the year due to food shortage and insufficient and extremely restrictive government financial aid, which triggered a severe economic crisis.

COVID-19 have brought about a change in the appreciation of space. Due to the restrictions, people became aware of the relevance of the green areas for mental and physical health, realising the importance of access to good and nearby green areas. UAPs in Santiago changed their activities to respond to the situations amid restrictions and limitations. Some groups limited their activities to allotments maintenance, while others continued with their usual work practices, aware of the health limitations. Workshops continued to be held but now moved to online platforms, including more topics and more partnerships due to ease of access. The economic crises in Chile promoted the emergence of voluntary soup kitchens to feed the neediest in the neighbourhoods, which were almost unheard of after the dictatorship. Because of their social and territorial concern, UAPs became, in many cases, the connection and point of information about the soup kitchen. The groups helped by disseminating information to the local community through their online platforms, being collection centres to receive products donated by the community and by using their networks to reach out to organisations that needed help or from where they could get help to feed the community or doing activities to raise money to help families or members of the local community. In other cases, allotments were created in neighbourhoods as primary food sources to help feed the community or provide products for the food kitchen.

In that sense, the last two years have been a total change in the country's social movements. It might be interesting to understand how urban agriculture networks changed due to these two situations in Chile.

References

Aarsæther, N., Bjørnå, H., Fotel, T. & Sørensen, E. (2009). Evaluating the Democratic Accountability of Governance Networks: Analysing Two Nordic Megaprojects. *Local Government Studies,* 35(5), pp.577-594. doi:10.1080/03003930903227394

Afzalan, N. & Muller, B. (2014). The Role of Social Media in Green Infrastructure Planning: A Case Study of Neighborhood Participation in Park Siting. *Journal of Urban Technology,* 21(3), pp.67-83. doi:10.1080/10630732.2014.940701

Agostini, C. A. (2010). Poverty, Inequality, and Segregation in the Metropolitan Region of Chile (Pobreza, Desigualdad Y Segregación en La Región Metropolitana). *SSRN Electronic Journal,* 117, pp.50. doi:10.2139/ssrn.1607432

Agyeman, J., Bullard, R. D. & Evans, B. (2010). Exploring the Nexus: Bringing Together Sustainability, Environmental Justice and Equity. *Space and Polity,* 6(1), pp.77-90. doi:10.1080/13562570220137907

Agyeman, J. & Evans, B. (2004). 'Just sustainability': the emerging discourse of environmental justice in Britain? *The Geographical Journal,* 170(2), pp.155-164. doi:10.1111/j.0016-7398.2004.00117.x

Agyeman, J., Schlosberg, D., Craven, L. & Matthews, C. (2016). Trends and Directions in Environmental Justice: From Inequity to Everyday Life, Community, and Just Sustainabilities. *Annual Review of Environment and Resources,* 41(1), pp.321-340. doi:10.1146/annurev-environ-110615-090052

Almuna, R., Montenegro, I., Mora, M. & Rojas, A. (2018). Huerto Popular Observatorio al Sur: articulando para la soberanía territorial. *In:* Ibarra, J., Caviedes, J., Barreau, A. & Pessa, N. (eds.) *Huertas familiares y comunitarias: cultivando soberanía alimentaria.* Santiago: Ediciones Universidad Católica de Chile.

Altieri, M. A. & Nicholls, C. I. (2008). Scaling up Agroecological Approaches for Food Sovereignty in Latin America. *Development,* 51(4), pp.472-480. doi:10.1057/dev.2008.68

Ambrose-Oji, B., Buijs, A. E., Gerőházi, E., Mattijssen, T. J. M., Száraz, L., Van der Jagt, A. P. N., Hansen, R., Rall, E., Andersson, E., Kronenberg, J. & Rolf, W.

(2017). Innovative Governance for Urban Green Infrastructure: A Guide for Practitioners. Copenhagen: University of Copenhagen.

Angelo, H. & Wachsmuth, D. (2015). Urbanizing Urban Political Ecology: A Critique of Methodological Cityism. *International Journal of Urban and Regional Research,* 39(1), pp.16-27. doi:10.1111/1468-2427.12105

Apostolopoulou, E. & Pantis, J. D. (2010). Development plans versus conservation: explanation of emergent conflicts and state political handling. *Environment and Planning A,* 42, pp.19.

Aquino, F. & Gainza, X. (2014). Understanding Density in an Uneven City, Santiago de Chile: Implications for Social and Environmental Sustainability. *Sustainability,* 6(9), pp.5876-5897. doi:10.3390/su6095876

Arce, I. (2017). Planificación urbana y estión empresarial del crecimiento de Santiago. Los casos de la renovación urbana del Centro Histórico de Santiago y el mega-proyecto Piedra Roja de Colina. *Contested Cities*, pp.21.

Arenas, F. & Hidalgo, R. (2014). La planificación territorial en los espacios metropolitanos: desafíos de sustentabilidad y gobernanza para el desarrollo urbano chileno. *In:* Montoya, J. W., Hidalgo, R., Brand, P. & Pérez, L. (eds.) *Metropolizaciones Colombia-Chile: experiencias de Bogotá, Medellín, Santiago de Chile y Concepción.* Colombia: Universidad Nacional de Colombia.

Armstrong, D. (2000). A survey of community gardens in upstate New York: Implications for health promotion and community development *Health & Place,* 6, pp.9.

Astudillo, D. (2017). *Valoracion de la agricultura urbana en distintos grupos humanos de Gran Santiago.* Ingeniero Agrónomo Bachelor Thesis, Universidad de Chile.

Azócar, G., Romero, H., Sanhueza, R., Vega, C., Aguayo, M. & Muñoz, M. D. (2007). Urbanization patterns and their impacts on social restructuring of urban space in Chilean mid-cities: The case of Los Angeles, Central Chile. *Land Use Policy,* 24(1), pp.199-211. doi:10.1016/j.landusepol.2005.04.003

Bach, C. E. & McClintock, N. (2020). Reclaiming the city one plot at a time? DIY garden projects, radical democracy, and the politics of spatial appropriation. *Environment and Planning C: Politics and Space.* doi:10.1177/2399654420974023

Banzhaf, E., Reyes-Paecke, S. M. & de la Barrera, F. (2018). What Really Matters in Green Infrastructure for the Urban Quality of Life? Santiago de Chile as a Showcase City. 10, pp.281-300. doi:10.1007/978-3-319-59324-1_15

Barron, D. (2015). *Áreas verdes públicas lineales y su aporte a la integración social en Santiago de Chile.* Universidad de Chile.

Barron, J. (2016). Community gardening: cultivating subjectivities, space, and justice. *Local Environment,* 22(9), pp.1142-1158. doi:10.1080/13549839.2016.1169518

Battersby, J. & Marshak, M. (2013). Growing Communities: Integrating the Social and Economic Benefits of Urban Agriculture in Cape Town. *Urban Forum,* 24(4), pp.447-461. doi:10.1007/s12132-013-9193-1

Beauregard, R. (2003). Democracy, Storytelling, and the Sustainable City. *In:* Eckstein, B. & Throgmorton, J. (eds.) *Story and Sustainability. Planning, Practice, and Possinility for American Cities.* London: The MIT Press.

Berdegué, J. & López, D. (2017). Mediana agricultura y agricultura familiar en chile hacia el año 2030. *In:* Apey, A., Barrera, D. & Rivas, T. (eds.) *Agricultua Chilena Reflexiones y Desafíos al 2030.* Chile: Oficina de Estudiosy Políticas Agrarias (ODEPA).

Blanco, I. (2013). Analysing urban governance networks: bringing regime theory back in. *Environment and Planning C: Government and Policy,* 31(2), pp.276-291. doi:10.1068/c11174

Blanco, I., Bonet, J. & Walliser, A. (2011). Urban governance and regeneration policies in historic city centres: Madrid and Barcelona. *Urban Research & Practice,* 4(3), pp.326-343. doi:10.1080/17535069.2011.616749

Bodin, Ö., Crona, B. & Ernstson, H. (2006). Social networks in natural resource management: What is there to learn from a structural perspective? *Ecology and Society,* 11(2). doi:10.5751/ES-01808-1102r02

Bodin, Ö. & Crona, B. I. (2009). The role of social networks in natural resource governance: What relational patterns make a difference? *Global Environmental Change,* 19(3), pp.366-374. doi:10.1016/j.gloenvcha.2009.05.002

Bodin, Ö., Ramirez-Sanchez, S., Ernstson, H., Prell, C., Bodin, O. & Prell, C. (2011). A social relational approach to natural resource governance. *In:* Bodin, O. &

Prell, C. (eds.) *Social Networks and Natural Resource Management.* Cambridge: Cambridge University Press.

Borgias, S. (2016). *Law, Scarcity, and Social Movements: Water Governance in Chile's Maipo River Basin.* Master of Arts, The University of Arizona.

Braun, V. & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology,* 3(2), pp.77-101. doi:10.1191/1478088706qp063oa

Braun, V. & Clarke, V. (2013). *Successful Qualitative research a practical guide for beginners*, SAGE Publications.

Brenner, N. & Theodore, N. (2010). Neoliberalism and the urban condition. *City,* 9(1), pp.101-107. doi:10.1080/13604810500092106

Bresciani, L. (2006). Del conflicto a la oportunidad: participación ciudadana en el desarrollo urbano. *URBANO,* 9(14), pp.14-19.

Buetow, S. (2010). Thematic analysis and its reconceptualization as 'saliency analysis'. *J Health Serv Res Policy,* 15(2), pp.123-5. doi:10.1258/jhsrp.2009.009081

Buizer, M. & Van Herzele, A. (2012). Combining deliberative governance theory and discourse analysis to understand the deliberative incompleteness of centrally formulated plans. *Forest Policy and Economics,* 16, pp.93-101. doi:10.1016/j.forpol.2010.02.012

Bullard, R. D. (2015). Phylon: Vol. 49, No. 3, 4, 2001 Environmental Justice in the 21st Century: Race Still Matters. *Phylon (1960-),* 52(1), pp.72-94.

Bullard, R. D. & Johnson, G. (2000). Environmental Justice: Grassroots Activism and Its Impact on Public Policy Decision Making. *Journal of Social Issues,* 56(3), pp.24.

Cabrera, R., Vera, M., Echeverría, R. & Amtmann, C. (2013). Agricultura urbana en la ciudad de Valdivia, Chile. Un proceso de asentamiento. *IDESIA,* 31(4), pp.8. doi:10.4067/S0718-34292013000400007

Calcagni, M., del Villar, A. & Valenzuela, C. (2013). Volviendo a la Tierra: un estudio sobre huertos urbanos en Santiago. *In:* Fuentes, A. (ed.) *Traduciendo el Zumbido del Enjambre: Hacia una comprensión del estado actual de la Agricultura Urbana en Chile.* Santiago: Editorial CU.

Calonge, F. (2017). Gobernanza neoliberal. Retos para el ordenamiento de las movilidades urbanas. *Revista Transporte y Territorio*(16), pp.17. doi:10.34096/rtt.i16.3609

Canteros, E. (2011). Las agrupaciones vecinales en defensa de los barrios. La construcción política desde lo local. *Revista de la Universidad Bolivariana,* 10(28), pp.85-99. doi:10.4067/S0718-65682011000100006

Casanova, P. (2016). Catastro de Huertos Urbanos - Aproximación a su estado actual y su contribución a la Soberanía Alimentaria.

Castán Broto, V. (2012). Exploring the lay/expert divide: the attribution of responsibilities for coal ash pollution in Tuzla, Bosnia and Herzegovina. *Local Environment,* 17(8), pp.879-895. doi:10.1080/13549839.2012.714753

Ceballos, W. (1997). Enverdecimiento urbano en Chile. *In:* Krishnamurthy, L. & Nascimiento, J. R. (eds.) *Áreas Verdes Urbanas en Latinoamérica y el Caribe.* Universidad Autónoma Chapingo.

Celermajer, D., Schlosberg, D., Rickards, L., Stewart-Harawira, M., Thaler, M., Tschakert, P., Verlie, B. & Winter, C. (2020). Multispecies justice: theories, challenges, and a research agenda for environmental politics. *Environmental Politics,* 30(1-2), pp.119-140. doi:10.1080/09644016.2020.1827608

Chambers, C. L. (2020). A critique of the "socio-ecological fix" and towards revolutionary rupture. *Area,* 53(1), pp.114-121. doi:10.1111/area.12668

Chen, K. & Lo, A. Y. (2020). Local climate change governance in China: an analysis of social network and cross-sector collaboration in capacity development. *Journal of Environmental Policy & Planning*, pp.1-18. doi:10.1080/1523908x.2020.1798748

Classens, M. (2014). The nature of urban gardens: toward a political ecology of urban agriculture. *Agriculture and Human Values,* 32(2), pp.229-239. doi:10.1007/s10460-014-9540-4

Colectivo Sustento. (no date). About. *Colectivo Sustento*. Available from: https://colectivosustento.org/welcome-2/ [Accessed 01 September 2020].

Collins, H. M. & Evans, R. (2002). The Third Wave of Science Studies: Studies of Expertise and Experience. *Social Studies of Science,* 32(2), pp.62. doi:10.1177/0306312702032002003

Colodro, U. (2016). Planificación urbana, salud y sostenibilidad: el caso de las áreas verdes en Santiago de Chile. ¿Cómo avanzamos hacia el cumplimiento de los objetivos de desarrollo sostenible? Santiago: OPS/OMS.

Conteh, C. (2009). Network Governance of Private Sector Development Policy Implementation in Singapore. *Asian Journal of Political Science,* 17(1), pp.71-88. doi:10.1080/02185370902767656

Contesse, M. (2014). *Is urban agriculture urban green? Comparing urban agriculture and urban green areas policy arrangements in Santiago de Chile.* Master in Environmental Sciences Master Thesis, Wageningen University.

Contreras, C., Granados, S. & López, S. (2016). Frontera Sur de Santiago. Detectando engranajes para una Infraestructura Verde entre lo urbano y lo natural. *VII Seminariio Internacional de investigación en Urbanismo.* BARCELONA.

Cook, I. R. & Swyngedouw, E. (2012). Cities, Social Cohesion and the Environment: Towards a Future Research Agenda. *Urban Studies,* 49(9), pp.1959-1979. doi:10.1177/0042098012444887

Crona, B., Ernstson, H., Prell, C., Reed, M., Hubacek, K., Bodin, O. & Prell, C. (2011). Combining social network approaches with social theories to improve understanding of natural resource governance. *In:* Bodin, Ö. & Prell, C. (eds.) *Social Networks and Natural Resource Management.* Cambridge: Cambridge University Press.

Cross, R. & Ampt, P. (2016). Exploring Agroecological Sustainability: Unearthing Innovators and Documenting a Community of Practice in Southeast Australia. *Society & Natural Resources,* 30(5), pp.585-600. doi:10.1080/08941920.2016.1230915

Cultivos Urbanos. (no date). Huerto urbano Yungay. *Cultivos Urbanos.* Available from: https://cultivosurbanos.cl/portfolio-items/huerto-urbano-yungay/ [Accessed 01 September 2020].

Cumming, P. (2015). Democracy and Student Discontent: Chilean Student Protest in the Post-Pinochet Era. *Journal of Politics in Latin America,* 7(3), pp.49-84. doi:10.1177/1866802X1500700302

Damgaard, B. & Torfing, J. (2011). The Impact of Metagovernance on Local Governance Networks. Lessons from Danish Employment Policy. *Local Government Studies,* 37(3), pp.291-316. doi:10.1080/03003930.2011.571254

Davenport, S. G. & Mishtal, J. (2019). Whose Sustainability? An Analysis of a Community Farming Program's Food Justice and Environmental Sustainability Agenda. *Culture, Agriculture, Food and Environment,* 41(1), pp.56-65. doi:10.1111/cuag.12227

Davies, J. (2002). The Governance of Urban Regeneration: A critique of the 'governing without government' thesis. *Public Administration,* 80(2), pp.22. doi:10.1111/1467-9299.00305

de la Barrera, F., Reyes-Paecke, S. & Banzhaf, E. (2016). Indicators for green spaces in contrasting urban settings. *Ecological Indicators,* 62, pp.212-219. doi:10.1016/j.ecolind.2015.10.027

De Mattos, C. (2014). Gobernanza neoliberal, financiarización y metamorfosis urbana en el siglo XXI.

Deichler, C. & Yáñez Andrade, J. C. (2018). Los huertos obreros y la agricultura familiar. Santiago de Chile: 1930-1945. *Mundo Agrario,* 19(42), pp.e095. doi:10.24215/15155994e095

Del Romeral, L. (2016). La práctica del derecho a la ciudad. Del urbanismo neoliberal al retorno de los comunes. *CONTESTED_CITIES.* Madrid.

Delaney, D. (2009). Territory and Territoriality. *In:* Kitchin, R. & Thrift, N. (eds.) *International Encyclopedia of Human Geography.*

Dieleman, H. (2017). Urban agriculture in Mexico City; balancing between ecological, economic, social and symbolic value. *Journal of Cleaner Production,* 163, pp.S156-S163. doi:10.1016/j.jclepro.2016.01.082

Djokić, V., Ristić Trajković, J., Furundžić, D., Krstić, V. & Stojiljković, D. (2018). Urban garden as lived space: Informal gardening practices and dwelling culture in socialist and post-socialist Belgrade. *Urban Forestry & Urban Greening,* 30, pp.247-259. doi:10.1016/j.ufug.2017.05.014

Drescher, A., Isendahl, C., Cruz, M. C., Karg, H. & Menakanit, A. (2021). Urban and Peri-Urban Agriculture in the Global South. *In:* Shackleton, C. M., Cilliers, S., Davoren, E. & du Toit, M. (eds.) *Urban Ecology in the Global South.* Switzerland: Springer Nature Switzerland AG.

Dryzek, J. (2005). *The Politics of the Earth. Environmental Discourses,* United States, Oxford University Press.

Eckstein, B. & Throgmorton, J. (2003). Introduction: Blueprint Blues. *In:* Eckstein, B. & Throgmorton, J. (eds.) *Story and Sustainability. Planning, Practice, and Possinility for American Cities.* London: The MIT Press.

Ekers, M. & Prudham, S. (2015). Towards the socio-ecological fix. *Environment and Planning A: Economy and Space,* 47(12), pp.2438-2445. doi:10.1177/0308518x15617573

Ekers, M. & Prudham, S. (2017a). The Metabolism of Socioecological Fixes: Capital Switching, Spatial Fixes, and the Production of Nature. *Annals of the American Association of Geographers,* 107(6), pp.1370-1388. doi:10.1080/24694452.2017.1309962

Ekers, M. & Prudham, S. (2017b). The Socioecological Fix: Fixed Capital, Metabolism, and Hegemony. *Annals of the American Association of Geographers,* 108(1), pp.17-34. doi:10.1080/24694452.2017.1309963

Elden, S. (2007). There is a Politics of Space because Space is Political. Henri Lefebvre and the Production of Space. *Radical Philosophy Review,* 10(2), pp.18. doi:10.5840/radphilrev20071022

Elliott, R. (1996). Discourse analysis: exploring action, function and conflict in social texts. *Marketing Intelligence & Planning,* 14(6), pp.65-68. doi:10.1108/02634509610131171

Ernstson, H., Barthel, S., Andersson, E. & Borgström, S. (2010). Scale-Crossing Brokers and Network Governance of Urban Ecosystem Services: The Case of Stockholm. *Ecology and Society,* 15(4), pp.28. doi:10.5751/ES-03692-150428

Everde. (2014). Biohuerto UC: La sustentabilidad y ecología como principios fundamentales. *Everde*. 24 June. Available from: https://www.everde.cl/2014/06/biohuerto-uc-la-sustentabilidad-y.html [Accessed 01 September 2020].

Falleth, E. & Saglie, I.-L. (2011). Democracy or efficiency: contradictory national guidelines in urban planning in Norway. *Urban Research & Practice,* 4(1), pp.58-71. doi:10.1080/17535069.2011.550541

FAO. (2014). Growing greener cities in Latin America and the Caribbean. *In:* Thomas, G. (ed.).

Farias, C. (2018). July 2018. Available: https://www.google.com/maps/uv?pb=!1s0x9662c3ae91fd34d7%3A0xba9f9faa46ff467c!3m1!7e115!4shttps%3A%2F%2Flh5.googleusercontent.com%2Fp%2FAF1QipOXOwvc-rHmFDeE30o0qc4V2_gee7Cg0_PqsDOH%3Dw283-h160-k-no!5shuertablock%20pudahuel%20-%20Google%20Search!15sCgIgAQ&imagekey=!1e10!2sAF1QipOXOwvc-rHmFDeE30o0qc4V2_gee7Cg0_PqsDOH&hl=en&sa=X&ved=2ahUKEwi8-

s3J4uvrAhXrRhUIHSAoB88QoiowGXoECBQQBg [Accessed 3 September 2020].

Fawcett, P., Manwaring, R. & Marsh, D. (2012). Network Governance and the 2020 Summit. *Australian Journal of Political Science,* 46(4), pp.651-667. doi:10.1080/10361146.2011.623667

Feindt, P. H. & Oels, A. (2005). Does discourse matter? Discourse analysis in environmental policy making. *Journal of Environmental Policy & Planning,* 7(3), pp.161-173. doi:10.1080/15239080500339638

Fernández, J. & Morán, N. (2012). Cultivar la resiliencia. Los aportes de la agricultura urbana a las ciudades en transición. *Papeles de relaciones ecosociales y cambio global*(119), pp.14.

Fernández, V. (2013). Whose public spaces? Citizen participation in urban planning in Santiago, Chile. *In:* Ashley, H., Kenton, N. & Milligan, A. (eds.) *Tools for supporting sustainable natural resource management and livelihoods.* International Institute for Environment and Development (IIED).

Flores, M. (2019). *Experiencias de gobernanza comunitaria de Infraestructura Verde Urbana en Chile: Un análisis de los factores claves de éxito.* Geógrafa, Universidad de Chile.

Folke, C., Hahn, T., Olsson, P. & Norberg, J. (2005). Adaptive Governance of Social-Ecological Systems. *Annual Review of Environment and Resources,* 30(1), pp.441-473. doi:10.1146/annurev.energy.30.050504.144511

Fonseca, A. (2019). Agricultura Familiar Campesina como alternativa de transición a un modelo de desarrollo inclusivo en Chile. *Revista Transformación Socio-Espacial,* 1(1), pp.13. doi:10.22320/24525413.2019.01.01.06

Fotel, T. & Hanssen, G. S. (2009). Meta-Governance of Regional Governance Networks in Nordic Countries. *Local Government Studies,* 35(5), pp.557-576. doi:10.1080/03003930903227386

Fox-Kämper, R., Wesener, A., Münderlein, D., Sondermann, M., McWilliam, W. & Kirk, N. (2018). Urban community gardens: An evaluation of governance approaches and related enablers and barriers at different development stages. *Landscape and Urban Planning,* 170, pp.59-68. doi:10.1016/j.landurbplan.2017.06.023

Fuentes, A. (ed.) 2014. *Traduciendo el Zumbido del Enjambre,* Santiago: Editorial CU.

Fuentes, A. (2015). Islas fértiles. Los Huertos Comunitarios de Santiago como espacios de articulación del poder popular. *Rufián Revista,* 22(1).

Fuentes, L., Mac-Clure, O., Moya, C. & Olivos, C. (2017). Santiago Chile: city of cities? Social inequalities in local labour market zones. *CEPAL,* 121, pp.16. doi:10.18356/ac128476-en

Fundación Mingako. (2019). — in San Bernardo, Chile. [Online]. 15 November 2019. Available: https://www.facebook.com/fmingako/photos/a.1779563079040554/23681991 93510270 [Accessed 02 September 2020].

Galdames, R. & Oyaneder, P. (2013). Cosechando comunidad conciente. Experiencia y trayectoria del Huerto Comunitario La Berenjena. *In:* Fuentes, A. (ed.) *Traduciendo el Zumbido del Enjambre.* Santiago: Editorial CU.

Garreton, M. (2017). City profile: Actually existing neoliberalism in Greater Santiago. *Cities,* 65, pp.32-50. doi:10.1016/j.cities.2017.02.005

Gasic, I. (2020). Mercado del suelo urbano y reserva financiera de terrenos para producción de vivienda en el Área Metropolitana de Santiago. *Revista de Geografía Norte Grande,* 76, pp.24. doi:10.4067/S0718-34022020000200071

Gee, J. P. (2010). *An Introduction to Discourse Analysis. Theory and method,* UK, Routledge.

Genus, A. (2014). Governing Sustainability: A Discourse-Institutional Approach. *Sustainability,* 6(1), pp.283-305. doi:10.3390/su6010283

Germina La Florida. (2014). 2do Aniversario del Huerto Comunitario La Berenjena *Germina La Florida.* 08 January. Available from: https://germinalaflorida.blogspot.com/2014/08/2do-aniversario-del-huerto-comunitario.html [Accessed 01 September 2020].

Giest, S. (2015). Comparative Analysis of Sweden's Wind Energy Policy: The Evolution of "Coordinated" Networks. *Journal of Comparative Policy Analysis: Research and Practice,* 17(4), pp.393-407. doi:10.1080/13876988.2015.1017302

Glen, D. (2017). *Understanding Structure and Character in Ruralwater Governance Networks.* Doctor in Philosophy PhD thesis, University of Northern British Columbia.

Glückler, J., Rehner, J. & Handke, M. (2019). Gobernanza, redes y territorio. *Revista de Geografía Norte Grande,* 74, pp.16. doi:10.4067/S0718-34022019000300005

Gonzalez, A., Donnelly, A., Jones, M., Klostermann, J., Groot, A. & Breil, M. (2012). Community of Practice Approach to Developing Urban Sustainability Indicators. *Journal of Environmental Assessment Policy and Management,* 13(04), pp.591-617. doi:10.1142/s1464333211004024

Gray, L., Elgert, L. & WinklerPrins, A. (2020). Theorizing urban agriculture: north–south convergence. *Agriculture and Human Values,* 37(3), pp.869-883. doi:10.1007/s10460-020-10015-x

Grisa, C. & Sabourin, E. (2019). Agricultura Familiar: de los conceptos a las políticas públicas en América Latina y el Caribe 2030. *Alimentación, agricultura y desarrollo rural en América Latina y el Caribe,* 15, pp.19.

Groutsis, D., van den Broek, D. & Harvey, W. S. (2015). Transformations in Network Governance: The Case of Migration Intermediaries. *Journal of Ethnic and Migration Studies,* 41(10), pp.1558-1576. doi:10.1080/1369183x.2014.1003803

Hajer, M. (1995). *The Politics of Environmental Discourse,* United States, Oxford University Press.

Hajer, M. & Versteeg, W. (2005). A decade of discourse analysis of environmental politics: Achievements, challenges, perspectives. *Journal of Environmental Policy & Planning,* 7(3), pp.175-184. doi:10.1080/15239080500339646

Halvorsen, S. (2018). Decolonising territory: Dialogues with Latin American knowledges and grassroots strategies. *Progress in Human Geography,* 43(5), pp.790-814. doi:10.1177/0309132518777623

Harvey, D. (1981). The spatial fix - Hegel, Von Thunen, and Marx. *Antipode,* 13 (3), pp.12.

Harvey, D. (2007). *A Brief History of Neoliberalism,* United States, Oxford University Press.

Hehn, C. (2016). *The emergence and evolution of Green Infrastructure planning in North West England: a policy arrangement approach.* Master of Science in Environmental Planning, Technische Universität Berlin.

Heitmann, J. (2014). Red de Agricultura Urbana: Identificando la Agricultura Urbana en Santiago de Chile. *In:* Fuentes, A. (ed.) *Traduciendo el Zumbido del Enjambre.* Santiago: Editorial CU.

Herbarium. (no date). Guided Tours. *Herbarium*. Available from: https://www.herbarium.cl/tours.html [Accessed 01 September 2020].

Herrmann, M. & van Klaveren, A. (2016). Disminución de la participación de la población en organizaciones sociales durante los últimos trece años en Chile e implicaciones para la construcción de una política de planificación urbana más participativa. *EURE,* 42(125), pp.175-203. doi:10.4067/S0250-71612016000100008

Heydon, J. (2020). Procedural Environmental Injustice in 'Europe's Greenest City': A Case Study into the Felling of Sheffield's Street Trees. *Social Sciences,* 9(6). doi:10.3390/socsci9060100

Heynen, N. (2013). Urban political ecology I. *Progress in Human Geography,* 38(4), pp.598-604. doi:10.1177/0309132513500443

Holifield, R. (2012). Environmental Justice as Recognition and Participation in Risk Assessment: Negotiating and Translating Health Risk at a Superfund Site in Indian Country. *Annals of the Association of American Geographers,* 102(3), pp.591-613.

Horst, M., McClintock, N. & Hoey, L. (2017). The Intersection of Planning, Urban Agriculture, and Food Justice: A Review of the Literature. *Journal of the American Planning Association,* 83(3), pp.277-295. doi:10.1080/01944363.2017.1322914

Horwood, K. (2011). Green infrastructure: reconciling urban green space and regional economic development: lessons learnt from experience in England's north-west region. *Local Environment,* 16(10), pp.963-975. doi:10.1080/13549839.2011.607157

Hou, J. (2018). Governing urban gardens for resilient cities: Examining the 'Garden City Initiative' in Taipei. *Urban Studies,* 57(7), pp.1398-1416. doi:10.1177/0042098018778671

Howarth, D. (2010). Power, discourse, and policy: articulating a hegemony approach to critical policy studies. *Critical Policy Studies,* 3(3-4), pp.309-335. doi:10.1080/19460171003619725

Huck, A., Hese, S. & Banzhaf, E. (2012). Delineating parameters for object-based urban structure mapping in Santiago de Chile using Wuickbird Data. *Int. Arch. Photogramm. Remote Sens. Spatial Inf. Sci,* XXXVIII-4/W19, pp.6. doi:10.5194/isprsarchives-XXXVIII-4-W19-131-2011

Hudson, S., Beckie, M., Krogman, N. & Gow, G. (2019). Establishing Sustainable Food Production Communities of Practice: Nutrition Gardening and Pond Fish Farming in the Kolli Hills, India. *Journal of Agriculture, Food Systems, and Community Development*, pp.1-15. doi:10.5304/jafscd.2019.084.006

Huerta Comunitaria Las Campanas. (2019). 8 August 2019. Available: https://www.facebook.com/HuertaCampanas/photos/a.299546523994710/411962692753092 [Accessed 2 September 2020].

Huerto Comunitario Pu Pichikeche. (2018). — at Parque Mirador Viejo, Independencia. [Online]. 17 February 2018. Available: https://www.facebook.com/hcpupichikeche/photos/a.1994399000801561/1994399854134809 [Accessed 01 September 2020].

Huerto Popular Observatorio al Sur. (2018). — at Huerto Popular Observatorio al Sur. [Online]. 21 Octubre 2018. Available: https://www.facebook.com/observatorioalsur/photos/a.492266480936550/1194868744009650 [Accessed 3 September 2020].

Huerto Urbano Yungay. (2020). 24 January 2020. Available: https://www.facebook.com/huertourbanoyungay/photos/a.244541095669097/2465078710281980 [Accessed 2 September 2020].

Hysing, E. (2009). From Government to Governance? A Comparison of Environmental Governing in Swedish Forestry and Transport. *Governance,* 22(4), pp.647-672. doi:10.1111/j.1468-0491.2009.01457.x

Ibarra, J., Barreau, A., Caviedes, J. & Pessa, N. (2018a). Resistiendo el Capitaloceno: huerteando cultivamos soberanía con proactividad y optimismo. *In:* Ibarra, J., Caviedes, J., Barreau, A. & Pessa, N. (eds.) *Huertas familiares y comunitarias: cultivando soberanía alimentaria.* Santiago: Ediciones Universidad Católica de Chile.

Ibarra, J., Caviedes, J., Barreau, A. & Pessa, N. (2018b). Huertas familiares y comunitarias: refugios bioculturales para la soberanía alimentaria en el campo y la ciudad. *In:* Ibarra, J., Caviedes, J., Barreau, A. & Pessa, N. (eds.) *Huertas familiares y comunitarias: cultivando soberanía alimentaria.* Santiago.

Imilan, W. (2016). Políticas y luchas por la vivienda en Chile: el camino neoliberal. *Contested Cities*, pp.1-20.

Inostroza, Y. & Schulze, P. (2014). Entre las tomas y actuales apropiaciones "ilegales" del suelo urbano. *Revista Temas Sociológicos,* 18, pp.14.

Janoschka, M. (2011). Geografías urbanas en la era del neoliberalismo. Una conceptualización de la resistencia local a través de la participación y la ciudadanía urbana. *Investigaciones Geográficas, Boletín del Instituto de Geografía, UNAM* (76), pp.15. doi:10.14350/rig.29879

Keping, Y. (2017). Governance and Good Governance: A New Framework for Political Analysis. *Fudan Journal of the Humanities and Social Sciences,* 11(1), pp.1-8. doi:10.1007/s40647-017-0197-4

Klijn, E.-H. & Koppenjan, J. (2012). Governance network theory: past, present and future. *Policy & Politics,* 40(4), pp.587-606. doi:10.1332/030557312x655431

Klijn, E.-H. & Skelcher, C. (2007). Democracy and Governance Networks: Compatible or Not? *Public Administration,* 85(3), pp.587-608. doi:10.1111/j.1467-9299.2007.00662.x

Konijnendijk van den Bosch, C. C. (2016). Tree agency and urban forest governance. *Smart and Sustainable Built Environment,* 5(2), pp.176-188. doi:10.1108/sasbe-07-2015-0017

Kutiwa, S., Boon, E. & Devuyst, D. (2010). Urban Agriculture in Low Income Households of Harare: An Adaptive Response to Economic Crisis *J Hum Ecol,* 32(2), pp.12. doi:10.1080/09709274.2010.11906325

Leta, G., Stellmacher, T., Kelboro, G., Van Assche, K. & Hornidge, A.-K. (2018). Social learning in smallholder agriculture: the struggle against systemic inequalities. *Journal of Workplace Learning,* 30(6), pp.469-487. doi:10.1108/jwl-12-2017-0115

Leyton, P. (2013). *Planning and design urban open spaces for low income neighbourhoods in Chile. Case Study, Alto Hospicio Chile.* Master Advances Studies in Landscape Architecture, The University of British Columbia.

Liu, Y., Li, Y., Xi, B. & Koppenjan, J. (2016). A governance network perspective on environmental conflicts in China: findings from the Dalian paraxylene conflict. *Policy Studies,* 37(4), pp.314-331. doi:10.1080/01442872.2016.1157853

Lo, C. (2017). Between Government and Governance: Opening the Black Box of the Transformation Thesis. *International Journal of Public Administration,* 41(8), pp.650-656. doi:10.1080/01900692.2017.1295261

Löfgren, K. & Ringholm, T. (2009). Introduction: New Network Modes of Nordic Local Governance. *Local Government Studies,* 35(5), pp.505-514. doi:10.1080/03003930903227337

López-Morales, E. & Slater, T. (2016). The triple nexus of housing struggles and urban social mobilizations in Chile. *RC21 International Conference.* Mexico City.

López-Morales, E. J. (2010). Real Estate market, state-entrepreneurialism and urban policy in the 'gentrification by ground rent dispossession' of Santiago de Chile. *Journal of Latin American Geography,* 9(1), pp.145-173. doi:10.1353/lag.0.0070

Lukes, S. (1974). *Power, a radical view,* Hong Kong, The MacMillan Press Ltd.

Madaleno, I. M. & Armijo, G. (2004). Agricultura urbana en metrópolis iberoamericanas: estudio de casos en Santiago de Chile y Lisboa, Portugal. *Investigaciones Geográficas, Boletín del Instituto de Geografía, UNAM*(54), pp.19. doi:10.14350/rig.30131

Madaleno, I. M. & Gurovich, A. (2004). "Urban versus rural" no longer matches reality: an early public agro-residential development in periurban Santiago, Chile. *Cities,* 21(6), pp.513-526. doi:10.1016/j.cities.2004.08.001

Martin, A., Coolsaet, B., Corbera, E., Dawson, N. M., Fraser, J. A., Lehmann, I. & Rodriguez, I. (2016). Justice and conservation: The need to incorporate recognition. *Biological Conservation,* 197, pp.254-261. doi:10.1016/j.biocon.2016.03.021

Mattijssen, T., Buijs, A., Elands, B. & Arts, B. (2017). The 'green' and 'self' in green self-governance – a study of 264 green space initiatives by citizens. *Journal of Environmental Policy & Planning,* 20(1), pp.96-113. doi:10.1080/1523908x.2017.1322945

McClintock, N. (2010). Why farm the city? Theorizing urban agriculture through a lens of metabolic rift. *Cambridge Journal of Regions, Economy and Society,* 3(2), pp.191-207. doi:10.1093/cjres/rsq005

McClintock, N. (2013). Radical, reformist, and garden-variety neoliberal: coming to terms with urban agriculture's contradictions. *Local Environment,* 19(2), pp.147-171. doi:10.1080/13549839.2012.752797

McEwen, L. & Jones, O. (2012). Building local/lay flood knowledges into community flood resilience planning after the July 2007 floods, Gloucestershire, UK. *Hydrology Research* 43.5, pp.14. doi:10.2166/nh.2012.022

Menton, M., Larrea, C., Latorre, S., Martinez-Alier, J., Peck, M., Temper, L. & Walter, M. (2020). Environmental justice and the SDGs: from synergies to gaps and contradictions. *Sustainability Science,* 15(6), pp.1621-1636. doi:10.1007/s11625-020-00789-8

Milbourne, P. (2019). Everyday (in)justices and ordinary environmentalism: community gardening in disadvantaged urban neighbourhoods. *In:* Tornaghi, C. & Certomà, C. (eds.) *Urban Gardening as Politics.* Routledge.

Moraga, S. (2018). *Análisis de experiencias de Agricultura Urbana en Santiago de Chile, una propuesta de clasificación.* Ingeniero Agrónomo Bachelor Thesis, Pontificia Universidad Católica de Chile.

Moran, L. & Rau, H. (2016). Mapping divergent concepts of sustainability: lay knowledge, local practices and environmental governance. *Local Environment,* 21(3), pp.18. doi:10.1080/13549839.2014.963838

Mougeot, L. (2006). Growing Better Cities: Urban Agriculture for Sustainable Development. Otawa, Canada: International Development Research Centre.

Mougeot, L. (2015). Urban Agriculture in Cities of the Global South: Four Logics of Integration. *In:* Imbert, D. (ed.) *Food and the City: Histories of Culture and Cultivation.* Washington, DC: Dumbarton, Oaks.

Munshi, K. (2004). Social learning in a heterogeneous population: technology diffusion in the Indian Green Revolution. *Journal of Development Economics,* 73(1), pp.185-213. doi:10.1016/j.jdeveco.2003.03.003

Natarajan, N. (2021). 'After me, all this is over': Exploring class-entangled geographical agency in a shifting climate among tobacco farmers in South India. *Area.* doi:10.1111/area.12693

Nielsen, T. (2016). *Words Matter in the Woods: Discourses on Deforestation in Global Climate Politics.* Doctoral, Lund University.

Novikau, A. (2016). The Evolution of the Concept of Environmental Discourses: Is Environmental Ideologies a Useful Concept? . *Western Political Science Association 2016 Annual Meeting Paper.*

Opitz, I., Berges, R., Piorr, A. & Krikser, T. (2015). Contributing to food security in urban areas: differences between urban agriculture and peri-urban agriculture

in the Global North. *Agriculture and Human Values,* 33(2), pp.341-358. doi:10.1007/s10460-015-9610-2

Opitz, I., Specht, K., Berges, R., Siebert, R. & Piorr, A. (2016). Toward Sustainability: Novelties, Areas of Learning and Innovation in Urban Agriculture. *Sustainability,* 8(4). doi:10.3390/su8040356

Oreszczyn, S., Lane, A. & Carr, S. (2010). The role of networks of practice and webs of influencers on farmers' engagement with and learning about agricultural innovations. *Journal of Rural Studies,* 26(4), pp.404-417. doi:10.1016/j.jrurstud.2010.03.003

Paddeu, F. (2017). From one movement to another? Comparing environmental justice activism and food justice alternative practices. *Food justice and agriculture,* 9, pp.33.

Paloniemi, R., Apostolopoulou, E., Cent, J., Bormpoudakis, D., Scott, A., Grodzińska-Jurczak, M., Tzanopoulos, J., Koivulehto, M., Pietrzyk-Kaszyńska, A. & Pantis, J. D. (2015). Public Participation and Environmental Justice in Biodiversity Governance in Finland, Greece, Poland and the UK. *Environmental Policy and Governance,* 25(5), pp.330-342. doi:10.1002/eet.1672

Pantanalli, K. (2009). *Análisis comercial de las empresas agrícolas urbanas de la ciudad de Valdivia, Chile.* Licenciada en Agronomía, Universidad Austral de Chile.

Pardo, S. (2008). *Caracterización socioeconómica y comercial, de la agricultura urbana de la Provincia de Ranco, Región de Los Ríos.* Licenciada en Agronomía, Universidad Austral de Chile.

Parraguez-Vergara, E., Contreras, B., Clavijo, N., Villegas, V., Paucar, N. & Ther, F. (2018). Does indigenous and campesino traditional agriculture have anything to contribute to food sovereignty in Latin America? Evidence from Chile, Peru, Ecuador, Colombia, Guatemala and Mexico. *International Journal of Agricultural Sustainability,* 16(4-5), pp.326-341. doi:10.1080/14735903.2018.1489361

Passidomo, C. (2016). Community gardening and governance over urban nature in New Orleans's Lower Ninth Ward. *Urban Forestry & Urban Greening,* 19, pp.271-277. doi:10.1016/j.ufug.2016.01.001

Paulsen Espinoza, A. (2020). La política de vivienda de la despolitización: gobernanza neoliberal, tecnocracia y luchas urbanas. El caso del Movimiento de pobladores Ukamau, Estación Central. *Investigaciones Geográficas*(59). doi:10.5354/0719-5370.2020.57141

Pérez, M. (2019). "Uno tiene que tener casa donde nació". Ciudadanía y derecho a la ciudad en Santiago. *EURE,* 45(135), pp.20.

Picón, M. C., De la Barrera, F., Reyes, S., Forray, R. & Berrizbeitia, A. (2017). Planificación ecológica en Santiago de Chile. ¿Qué tan lejos estamos? Clasificación de iniciativas de planificación territorial basadas en una breve revisión bibliográfica. *Investigaciones Geográficas*(54), pp.105. doi:10.5354/0719-5370.2017.48044

Pietta, A. & Tononi, M. (2021). Re-Naturing the City: Linking Urban Political Ecology and Cultural Ecosystem Services. *Sustainability,* 13(4). doi:10.3390/su13041786

Pinheiro, A. & Govind, M. (2020). Emerging Global Trends in Urban Agriculture Research: A Scientometric Analysis of Peer-reviewed Journals. *Journal of Scientometric Research,* 9(2), pp.163-173. doi:10.5530/jscires.9.2.20

Prell, C., Bodin, O. & Prell, C. (2011). Some basic structural characteristics of networks. *Social Networks and Natural Resource Management.* Cambridge: Cambridge University Press.

Prell, C., Hubacek, K. & Reed, M. (2009). Stakeholder Analysis and Social Network Analysis in Natural Resource Management. *Society & Natural Resources,* 22(6), pp.501-518. doi:10.1080/08941920802199202

Radio Popular Enrique Torres. (2015). Comunicado: violencia municipal contra el huerto comunitario Pu Pichikeche y la biblioteca popular Marcos Ariel Antonioletti. *Radio Popular Enrique Torres*. March. Available from: http://radioenriquetorres.blogspot.com/2015/03/comunicado-violencia-municipal-contra.html [Accessed 01 September 2020].

Ramos, Y. (2016). Crisis del concepto gobernanza bajo el modelo neoliberal en América Latina. *CUADERNO JURÍDICO Y POLÍTICO,* 2(5), pp.12. doi:10.5377/cuadernojurypol.v2i5.11095

Repetto, A. (2016). Crecimiento, pobreza y desigualdad: la vía chilena. *Economía y Política,* 3(1), pp.31. doi:10.15691/07194714.2016.003

Reyes-Paecke, S. & Pavez, C. (2016). Riego de la vegetación urbana en el contexto del cambio climático: lecciones del Área Metropolitana de Santiago. *In:* Nail, S. (ed.) *Cambio Climático. Lecciones de y para ciudades de América Latina.* Colombia.

Reynolds, K. & Cohen, N. (2016). *Beyond the kale: urban agriculture and social justice activism in New York City,* Athens, Georgia, University of Georgia Press.

Rodriguez, A. & Rodriguez, P. (2013). Políticas neoliberales en Santiago de Chile: políticas contra la ciudad. *Questiones Urbanas Regionales,* 2(2), pp.9-28.

Rodríguez, D., Anríquez, G. & Riveros, J. (2016). Food security and livestock: The case of Latin America and the Caribbean. *Ciencia e Investigación Agraria,* 43(1), pp.15. doi:10.4067/S0718-16202016000100001

Rodríguez, F. (2018). Huertas urbanas, bienestar y resiliencia: un aporte a la transición hacia la sustentabilidad en Chile. *In:* Ibarra, J., Caviedes, J., Barreau, A. & Pessa, N. (eds.) *Huertas familiares y comunitarias: cultivando soberanía alimentaria.* Santiago: Ediciones Universidad Católica de Chile.

Rosso, B. (2014). La "alianza" entre ciudadanía y patrimonio en la producción del espacio: El caso del Barrio Yungay, Santiago de Chile. *Planeo,* 18, pp.15.

Roubelat, L. & Armijo, G. (2012). Urban Agriculture in the Metropolitan Area of Santiago de Chile. An Environmental Instrument to Create a Sustainable Urban Model. *Lima, Peru.* PLEA2012 - 28th Conference, Opportunities, Limits & Needs Towards an environmentally responsible architecture.

Ruiz-Tagle, J., Imilan, W. & Lukas, M. (2017). Santiago de Chile en Disputa: de la avalancha neoliberal a las alternativas de resistencia y auto-gestión. *Contested Cities*, pp.1-4.

Ruiz, J. C. (2016). 'Yo no me voy de la Caro': Dealing with gentrification in an inner-city community of neoliberal Santiago de Chile. *From CONTESTED_CITIES to Global Urban Justice.* Madrid.

Rydin, Y. (2016). Re-Examining the Role of Knowledge Within Planning Theory. *Planning Theory,* 6(1), pp.52-68. doi:10.1177/1473095207075161

Rydin, Y., Amjad, U. & Whitaker, M. (2007). Environmentally Sustainable Construction: Knowledge and Learning in London Planning Departments. *Planning Theory & Practice,* 8(3), pp.363-380. doi:10.1080/14649350701514686

Rydin, Y. & Holman, N. (2004). Re-evaluating the Contribution of Social Capital in Achieving Sustainable Development. *Local Environment,* 9(2), pp.117-133. doi:10.1080/1354983042000199561

Rydin, Y. & Pennington, M. (2010). Public Participation and Local Environmental Planning: The collective action problem and the potential of social capital. *Local Environment,* 5(2), pp.153-169. doi:10.1080/13549830050009328

Sabatini, F. (2000). Reforma de los mercados de suelo en Santiago, Chile: efectos sobre los precios de la tierra y la segregación residencial. *EURE,* 26(77), pp.32. doi:10.4067/S0250-71612000007700003

Sabatini, F., Cáceres, G. & Cerda, J. (2001). Segregación residencial en las principales ciudades chilenas: Tendencias de las tres últimas décadas y posibles cursos de acción. *EURE,* 27(82). doi:10.4067/S0250-71612001008200002

Saldías, G. (2016). Huerta Urbana Comunitaria, una buena práctica social. *Revista Diseño Urbano & Paisaje,* 31, pp.8.

Sanzana, M. (2016). *The greening of neoliberal urbanism in Santiago de Chile: urbanisation by green enclaves and the production of a new socio-nature in Chicureo.* Doctor of Philosophy, University College London.

Sbicca, J. (2019). Urban Agriculture, Revalorization, and Green Gentrification in Denver, Colorado. *The Politics of Land.*

Schlosberg, D. (2004). Reconceiving Environmental Justice: Global Movements And Political Theories. *Environmental Politics,* 13(3), pp.517-540. doi:10.1080/0964401042000229025

Schoon, M., York, A., Sullivan, A. & Baggio, J. (2016). The emergence of an environmental governance network: the case of the Arizona borderlands. *Regional Environmental Change,* 17(3), pp.677-689. doi:10.1007/s10113-016-1060-x

Schwab, E., Caputo, S. & Hernández-García, J. (2018). Urban Agriculture: Models-in-Circulation from a Critical Transnational Perspective. *Landscape and Urban Planning,* 170, pp.15-23. doi:10.1016/j.landurbplan.2017.09.012

Serra da Cruz, S. M., Steglich, A., Vieira Cruz, P. & Macedo Vieira, A. C. (2021). Investigating the challenges and opportunities of urban agriculture in global north and global south countries. *Frontiers of Science and Technology.*

Shaw, A. & Kristjanson, P. (2014). A Catalyst toward Sustainability? Exploring Social Learning and Social Differentiation Approaches with the Agricultural Poor. *Sustainability,* 6(5), pp.2685-2717. doi:10.3390/su6052685

Sicotte, D. & Brulle, R. (2017). Social movements for environmental justice through the lens of social movement theory. *In:* Holifield, R., Chakraborty, J. & Walker, G. (eds.) *The Routledge Handbook of Environmental Justice.*

Skelcher, C., Klijn, E.-H., Kübler, D., Sørensen, E. & Sullivan, H. (2014). Explaining the Democratic Anchorage of Governance Networks. *Administrative Theory & Praxis,* 33(1), pp.7-38. doi:10.2753/atp1084-1806330100

Smolka, M. & Sabatini, F. (2007). El debate sobre la liberalización del mercado de suelo en Chile. *In:* Smolka, M. & Mullahy, L. (eds.) *Perspectivas urbanas. Temas críticos en políticasde suelo en América Latina.* United States: Lincoln Institute of Land Policy.

Somma, N. & Bargsted, M. (2015). Autonomización de la protesta en Chile. *In:* Cox, C. & Castillo, J. C. (eds.) *Socialización Política y Experiencia Escolar: Aportes para la Formación Ciudadana en Chile.*

Sørensen, E. (2013). Institutionalizing interactive governance for democracy. *Critical Policy Studies,* 7(1), pp.72-86. doi:10.1080/19460171.2013.766024

Sørensen, E. (2014). Democratic Theory and Network Governance. *Administrative Theory & Praxis,* 24(4), pp.693-720. doi:10.1080/10841806.2002.11029383

Sørensen, E. & Torfing, J. (2005). The Democratic Anchorage of Governance Networks. *Scandinavian Political Studies,* 28(3), pp.24. doi:10.1111/j.1467-9477.2005.00129.x

Sørensen, E. & Torfing, J. (2009). Making Governance Networks Effective and Democratic through Metagovernance. *Public Administration,* 87(2), pp.234-258. doi:10.1111/j.1467-9299.2009.01753.x

Sørensen, E. & Torfing, J. (2011). Enhancing Collaborative Innovation in the Public Sector. *Administration & Society,* 43(8), pp.842-868. doi:10.1177/0095399711418768

Stone, C. (1988). *Regime Politics: Governing Atlanta, 1946-1988,* United States of America, University press of Kansas.

Stone, G. D. (2016). Towards a General Theory of Agricultural Knowledge Production: Environmental, Social, and Didactic Learning. *Culture, Agriculture, Food and Environment,* 38(1), pp.5-17. doi:10.1111/cuag.12061

Strandburg, K. J., Frischmann, B. M. & Madison, M. J. (2017). The Knowledge Commons Framework. *Governing Medical Knowledge Commons.*

Takahashi, B. & Meisner, M. (2012). Environmental Discourses and Discourse Coalitions in the Reconfiguration of Peru's Environmental Governance. *Environmental Communication,* 6(3), pp.346-364. doi:10.1080/17524032.2012.700522

Tennberg, M., Vola, J., Espiritu, A. A., Fors, B. S., Ejdemo, T., Riabova, L., Korchak, E., Tonkova, E. & Nosova, T. (2014). Neoliberal governance, sustainable development and local communities in the Barents Region. *BARENTS STUDIES: Peoples, Economies and Politics,* 1(1), pp.32.

Thomas, E., Riley, M. & Spees, J. (2020). Knowledge flows: Farmers' social relations and knowledge sharing practices in 'Catchment Sensitive Farming'. *Land Use Policy,* 90. doi:10.1016/j.landusepol.2019.104254

Thomas, K. & Littlewood, S. (2010). From Green Belts to Green Infrastructure? The Evolution of a New Concept in the Emerging Soft Governance of Spatial Strategies. *Planning Practice & Research,* 25(2), pp.203-222. doi:10.1080/02697451003740213

Thornton, A. (2018). *Space and Food in the City. Cultivating Social Justice and Urban Governance through Urban agriculture*, Palgrave Macmillan.

Torfing, J. (2012). Governance Networks. *In:* Levi-Faur, D. (ed.) *The Oxford Handbook of Governance.*

Torfing, J. & Sørensen, E. (2017). The European debate on governance networks: Towards a new and viable paradigm? *Policy and Society,* 33(4), pp.329-344. doi:10.1016/j.polsoc.2014.10.003

Torfing, J., Sørensen, E. & Fotel, T. (2009). Democratic Anchorage of Infrastructural Governance Networks: the Case of the Femern Belt Forum. *Planning Theory,* 8(3), pp.282-308. doi:10.1177/1473095209104827

Torri, M. C. (2010). Medicinal Plants Used in Mapuche Traditional Medicine in Araucanía, Chile: Linking Sociocultural and Religious Values with Local Heath Practices. *Complementary health practice review,* 15(3), pp.132-148. doi:10.1177/1533210110391077

Undurraga, T. (2015). Neoliberalism in Argentina and Chile: common antecedents, divergent paths. *Revista de Sociologia e Política,* 23(55), pp.11-34. doi:10.1590/1678-987315235502

Urra, R. & Ibarra, J. (2018). Estado del conocimiento sobre huertas familiares en Chile: agrobiodiversidad y cultura en un mismo espacio. *Revista Etnobiología,* 16(1), pp.16.

van Dijk, T. (2011). Discourse and Ideology. *Discourse Studies: A Multidisciplinary Introduction.*

van Dijk, T. (2012). Knowledge, discourse and domination. *In:* Meeuwis, M. & Östman, J.-O. (eds.) *Pragmaticizing Understanding. Studies for Jef Verschueren.*

van Holstein, E. (2019). Strategies of self-organising communities in a gentrifying city. *Urban Studies,* 57(6), pp.1284-1300. doi:10.1177/0042098019832468

Vásquez, A., Devoto, C., Giannotti, E. & Velásquez, P. (2016). Green Infrastructure Systems Facing Fragmented Cities in Latin America - Case of Santiago, Chile. *Procedia Engineering,* 161, pp.1410-1416. doi:10.1016/j.proeng.2016.08.602

Vega, D. (2013). Huertos urbanos y acción colectiva: significados históricos en tránsito. *In:* Fuentes, A. (ed.) *Traduciendo el Zumbido del Enjambre: Hacia una comprensión del estado actual de la Agricultura Urbana en Chile.* Santiago: Edutorial CU.

Veloso, E. (2013). Lucha por la ciudad. Reconstrucción de alternativas de resistencia a la ciudad neoliberal. El Caso de la SEPPLAT (Secretaría Popular de Planificación Territorial). Santiago de Chile. *IV Congreso Internacional en Gobierno, Administración y Políticas Públicas.* Madrid, España.

Vera, M. & Moreira, V. (2009). Caracterización de la microempresa agrícola del sur de Chile. *IDESIA* 27(3), pp.11. doi:10.4067/S0718-34292009000300011.

Vergara-Perucich, F. & Boano, C. (2020). Exploring the Contradiction in the Ethos of Urban Practitioners under Neoliberalism: A Case Study of Housing Production in Chile. *Journal of Planning Education and Research*. doi:10.1177/0739456x20971684

Vergara, L. (2019). *¿Construyendo comunidad de barrio? Mixtura y cohesión social en los Proyectos de Integración Social en Chile.* Doctor en Arquitectura y Estudios Urbanos, Ponitficia Universidad Católica de Chile.

Villagrán, C. & Qiu, K. (2013). Agricultura urbana y el rol de la planificación de las ciudades. Urban agriculture and the role of urban planning. *Revista de Urbanismo,* 29, pp.15. doi:10.5354/0717-5051.2013.30302

Villagrán, C., Qiu, K. & Turnbull, N. (2014). Cultivando la ciudad: Agricultura Urbana y planificación en Santiago de Chile. *In:* Fuentes, A. (ed.) *Traduciendo el Zumbido del Enjambre: Hacia una comprensión del estado actual de la Agricultura Urbana en Chile.* Santiago: Editorial UC.

Weiland, U., Kindler, A., Banzhaf, E., Ebert, A. & Reyes-Paecke, S. (2011). Indicators for sustainable land use management in Santiago de Chile. *Ecological Indicators,* 11(5), pp.1074-1083. doi:10.1016/j.ecolind.2010.12.007

Wenger, E. (2000). Communities of Practice and Social Learning Systems *Organization,* 7(2), pp.22. doi:10.1177/135050840072002

Wilson, O. & Hughes, O. (2011). Urban Green Space Policy and Discourse in England under New Labour from 1997 to 2010. *Planning Practice and Research,* 26(2), pp.207-228. doi:10.1080/02697459.2011.560462

Withanachchi, S. (2013). 'Green Consumption' beyond mainstream economy: A discourse analysis. *Future of Food: Journal on Food, Agriculture and Society,* 1(1), pp.69-80.

Wynne, B. (1996). May the Sheep Safely Graze? A Reflexive View of the Expert–Lay Knowledge Divide. *In:* Szerszynski, B., Lash, S. & Wynne, B. (eds.) *Risk, Environment and Modernity: Towards a New Ecology.* London: Sage.

Yang, K. (2007). Responsiveness in Network Governance: Revisiting a Fundamental Concept: Symposium Introduction. *Public Performance & Management Review,* 31(2), pp.131-143. doi:10.2753/pmr1530-9576310200

Yin, R. K. (2009). *Case study research: design and methods*, SAGE.

Yin, R. K. (2013). Validity and generalization in future case study evaluations. *Evaluation,* 19(3), pp.321-332. doi:10.1177/1356389013497081

Zencovich, J. (2003). *Análisis exploratorio de la agricultura urbana en la ciudad de Valdivia.* Licenciado en Agronomía, Universidad Austral de Chile.

Zimmer, A. (2010). Urban Political Ecology. Theoretical concepts, challenges, and suggested future directions. *Erdkunde,* 64(4), pp.343-354. doi:10.3112/erdkunde.2010.04.04

Zunino, H. M. (2001). La planificación urbana en el Chile de hoy: "Actores sociales estructurados" y la construcción de redes de gobernabilidad. *Revista de Geografía Norte Grande,* 28, pp.73-78.

Zunino, H. M. (2014). Penetración neoliberal en Chile: posibilidades y restricciones para la participación ciudadana. NEOLIBERAL PENETRATION IN CHILE:

POSSIBILITIES AND RESTRICTIONS TO CIVIC PARTICIPATION. *Revista de Geografía Espacios,* 4(7), pp.71-81. doi:10.25074/07197209.7.360

Zunino, H. M. & Hidalgo, R. (2009a). Del país urbano al país metropolitano. Transformaciones recientes en las ciudades chilenas. *In:* Hidalgo, R., De Mattos, C. & Arenas, F. (eds.) *Chile: del pais urbano al pais metropolitano* Santiago: Pontificia Universidad Catolica de Chile.

Zunino, H. M. & Hidalgo, R. (2009b). Las politicas de vivienda en el Chile neoliberal: efectos socioespaciales y relaciones de poder en el caso del área metropolitana de Valparaíso y su periferia. *In:* Hidalgo, R., De Mattos, C. & Arenas, F. (eds.) *Chile: del país urbano al país metropolitano.* Santiago: Pontificia Universidad Catolica de Chile.

Zunino, H. M. & Hidalgo, R. (2009c). Spatial and Socioeconomic Effects of Social Housing Policies Implemented in Neoliberal Chile: The Case of Valparaíso. *Urban Geography,* 30(5), pp.514-542. doi:10.2747/0272-3638.30.5.514

Zunino, H. M. & Hidalgo, R. (2011). La producción multi-escalar de la periferia urbana de las áreas metropolitanas de Valparaíso y Santiago, Chile. Elementos conceptuales y analíticos. *Boletín de la Asociación de Geógrafos Españoles,* 55(27), pp.7-33.

Legislation

DS N°47. Fija nuevo tratado de la Ordenanza General de Urbanismo y Construcciones. Diario Oficial de la República de Chile, Santiago, Chile, 5 June 1992.

Decreto N°58. Fija texto refundido, coordinado y sistematizado de la Ley Nº 19.418, sobre juntas de vecinos y demás organizaciones comunitarias. Diario Oficial de la República de Chile, Santiago, Chile, 9 January 1997.

Decreto N°352 Exento. Dicta ordenanza sobre mantención de áreas verdes y especies vegetales en la vía pública, Municipalidad de Macul, Diario Oficial de la República de Chile, Santiago, Chile, 6 January 1986.

DFL N°458. Aprueba Nueva Ley General de Urbanismo y Construcciones. Diario Oficial de la República de Chile, Santiago, Chile, 13 April 1976.

Ordenanza N°78. Reglamenta conservación de especies vegetales de ornato, mobiliario urbano y áreas verdes de la comuna. Diario Oficial de la República de Chile, Santiago, Chile, 23 July 1998.

Appendices 1. Description of the urban agriculture projects interviewed.

Huerto Comunitario Pu Pichikeche

It is a community organisation created by the members of the Colectivo Bahual in Independencia, which started as a response to the education movements and territorial assemblies in 2011. Intending to cause a long-lasting impact in the territory, they created the Biblioteca Popular Marcos Ariel Antonioletti (Popular Library Marcos Ariel Antonioletti) in 2012 to generate an educative space with the neighbours and, then, the Huerto Comunitario Pu Pichikeche in 2014 to offer a space where girls and boys can grow vegetables, play and have fun in the open air (Radio Popular Enrique Torres, 2015). According to Astudillo (2017), "both offer a self-managed space that aims at popular education, reflection on ecological and social issues and promoting horizontal relationships". They meet every Saturday to work and develop other activities on other days. The allotment is open just when they have activities, or members of the group are working. They plan their main activities every semester and update them every week or two weeks, depending on the social climate. At the moment of the fieldwork, the allotment was located in the northeast corner of Parque Mirador Viejo (Mirador Viejo Park) and closed by pellets to avoid the its destruction. However, due to the park's renovation, the allotment and library were moved to another sector. They have had some issues with the neighbours and municipality regarding the legality of the allotment.

Third party copyright
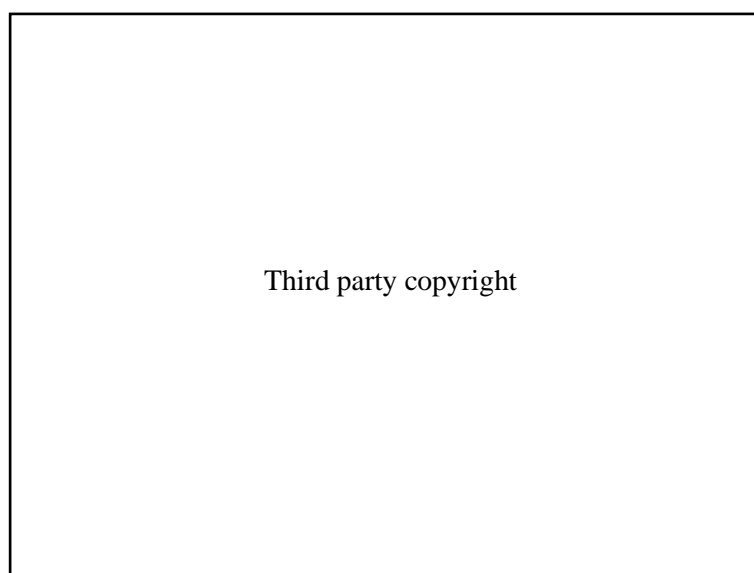
Figure 15. Section of the allotment located in the previous position within park Mirador Viejo. Source: Huerto Comunitario Pu Pichikeche (2018)

Huerto Comunitario La Berenjena

It is a community organisation with a legal personality integrated by neighbours of La Florida. It was started by a group of young neighbours who decided to recover an unused space to convert it to a neighbourhood meeting and education point (Germina La Florida, 2014). The place works as a gathering for territorial assemblies of other groups, workshops and other activities. The allotment has also allowed the emergence of organisations, such as Germina La Florida and Franzine Aborigen, and an itinerant library called "Biblioteca Amaranto", installed every Tuesday in a close-by farmer market. The allotment is always open for people to access. During the first three years, they planned their activities very formally, with acts and meetings every week or two weeks, with one group leading the activities. Now they are more inconsistent regarding the structure. They have more freedom in the planning, with one person leading the activities and then the other following depending on their interest. The allotment is in a cul-de-sac that was previously a landfill. They have had some issues regarding the legality of the allotment with the municipality, but they were supported by the neighbours. The space also has a composting area and a meeting area.

Figure 16. Huerto Comunitario La Berenjena.

Huerto Popular Observatorio al Sur

It is a student and community organisation integrated by students from different areas of the Campus Antumapu of Universidad de Chile and neighbours of the allotment in La Pintana. Despite the members being part of the university, the allotment works independently. The allotment started after the student mobilisation in the Campus in 2011 due to their need to continue the networks established with other actors. In the beginning, they decided to support a group of *allegados*[39] to build houses in the land that now the allotment is using. When the project failed, they focused on creating the allotment in 2013. They work closely with Rayuela Club[40], a group with part of the lease of the land and a shed, which is used to keep the tools. The land was previously a landfill and a place of insecurity. They meet every Saturday to work in the allotment and to do activities open to the community. They do not have a meeting structure to plan their work. They meet sometimes and decide on the general activities they will do. The group sees the allotment as space to connect the elite university with the territory, especially as they are in the most vulnerable and poor municipality of the region.

Third party copyright
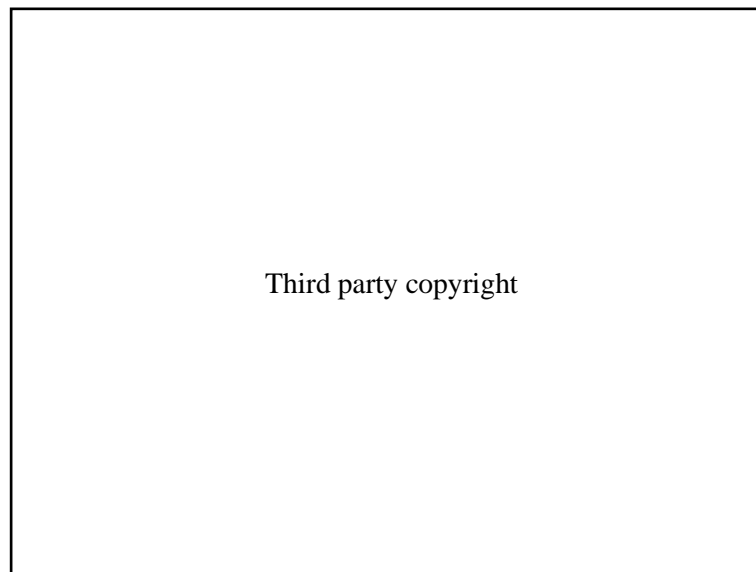
Figure 17. Part of Huerto Popular Observatorio al Sur, the tower of water and the shed where they keep their tools. Source: Huerto Popular Observatorio al Sur (2018)

---

[39] People or households that inhabits someone else's dwelling or backyard patio, usually kin to the homeowner, as temporary solution for their economic incapacity to own or rent a dwelling (López-Morales, 2010).

[40] *Rayuela* is a traditional Chilean game. The objective is to throw a disk called *tejo* to land on a target on the ground, which is a white string stretched on the centre of a box of mud.

Huerta Comunitaria Las Campanas

It is a community organization integrated by neighbours of La Reina. The allotment was started in 2018 with the interest of members of the neighbourhood council, which is located in the park, to create spaces for sustainable, ecological and community activities. They used a small area of the park called Las Campanas for the allotment. The area was previously a sandbox for the children to play with, but dogs were mainly using it. They had problems with drug addicts and alcoholic people using the park, which they have solved using the space. The allotment is open to the public, and the members work daily, especially in the afternoon, a time when they irrigate the vegetables. They have had some complaints from the municipality due to public space use, but the neighbours and neighbourhood council support them.

Third party copyright
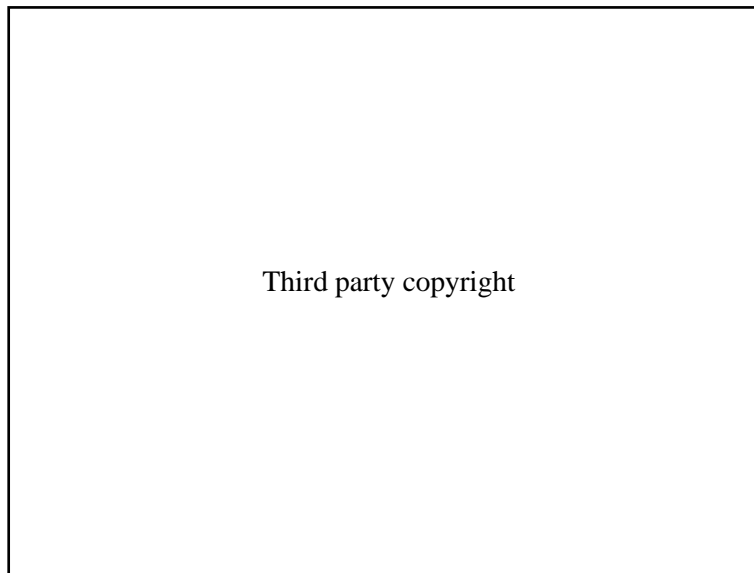
Figure 18. Huerto Comunitaria Las Campanas. Source: Huerta Comunitaria Las Campanas (2019)

Huertas Urbanas de La Reina

It is an allotment from the Municipality of La Reina started in 2001. It is part of Corporación Aldea del Encuentro and is located inside their main property. It works as a community centre with different areas that promote art, culture, and the environment through urban agriculture. The allotment is organised on a sharecropping system (members keep 50% of their production and the organisation the other 50%), where neighbours apply for the use of plots of 16m^2 to work. The staff provides training to the participants through personal help and workshops, and all the equipment and support is free. Due to their system, the participants need to meet the regulations established by the allotment, such work in the allotments for 20 hours when they integrate the programme, assist to specific workshops, be a trial of three months, work in their plots for at least four hours a week, within others, otherwise, they will be given to another person. The space also has a composting area, greenhouse and recycling points.

Figure 19. One of the plots assigned to the neighbours in Huertas Urbanas de La Reina.

Huertas Vecinas Antu-Newen

It is a community organization integrated by neighbours of La Reina. They started with an activity given to a scout group called Make Make. In 2013, intending to impact the neighbours and the neighbourhood, they assigned the kids the task of cleaning Parque Andacollo and planting some vegetables. After the activity was finished, the allotment remained, and the neighbours decided to ask the municipality for help to maintain it and improve it. They received some materials and were trained by a professional from Huertas Urbanas de La Reina for a year before starting the allotment. The allotment is open to people to work or to use as recreation. They do not need to meet very often to arrange activities since the members see each other quite often, as one of the members has a kiosk beside the allotment and another water the allotment every morning. They have evaluative meetings to determine the areas they need to improve, change or activities they need to incorporate. The space has a composting area.
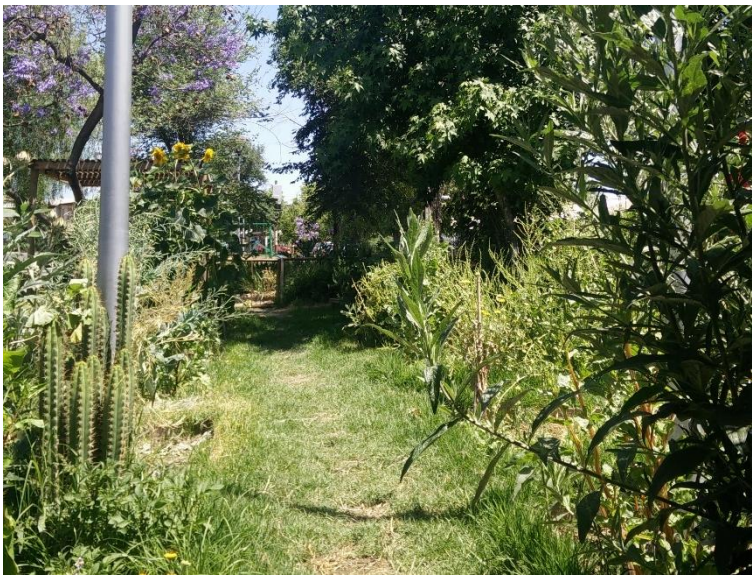
Figure 20. Huertas Vecinas Antu-Newen.

Biohuerto UC

It is a student and community organisation integrated by students from different areas of the Campus San Joaquin, Pontificia Universidad Católica de Chile and neighbours of the allotment in Macul. It started in 2006 when three students asked the Faculty of Agronomy to use a small allotment space. The allotment is integrated by students, alumni, faculty and neighbours. Their mission is to "educate and spread the development of urban ecological allotments, considering environmental education as a fundamental element for improving people quality of life in the city" (Everde, 2014). They have a group of members in the area of coordination and another in the demonstrative units. They open the allotment every Friday from 13:00 to everyone that wants to work. They have two types of meetings, every two weeks, they have a general meeting with both units and people from the community, and every week they have meetings within each area. Since its origin, the allotment has been moved two times to different areas. However, their lease is currently with the Municipality of Macúl and not with the university.

Figure 21. Biohuerto UC.

Ecobarrio Villa Santa Elena

It is a community organisation integrated by neighbours of Macul and the environmental committee of the neighbourhood council N°17. The allotment is part of Ecobarrios (Eco Neighbourhoods) concept, which corresponds to community projects to improve the neighbourhood's physical and environmental quality. The allotment was established in 2014 as one of the elements of sustainability actions. There are three areas with allotments in the space, which is owned by the neighbourhood council. One is the front, with vegetables and flowers, then a greenhouse that works as a nursery and then the inside with different vegetables and composting areas. Neighbours and members of the council integrate the allotment.

Figure 22. Allotment in the back of Ecobarrio Villa Santa Elena.

Huerto San Francisco

It is a university allotment created under the Directorate of Sustainability of the Pontificia Universidad Católica de Chile Campus San Joaquín located on Macul established in 2015 through a community participation process. They had a consultancy period of 10 months, which generated different designs, and the university provided the funding for the implementation and the four first years. The allotment is located in university land. They have people overseen different areas of the allotment. The allotment is open for people to enter; however, they have assigned the gardening activities for Wednesday and the other days for specific groups from the university, neighbourhood or schools. They have a composting area and a resting area.

Figure 23. Huerto San Francisco has terraces on both sides. Here just one side is shown. On the back is the resting area.

Herbarium

It is a private organisation in Peñalolén. It is a "recreational and development centre" established in 1989 to provide "a lifestyle that respectfully seeks harmony and peace through a conscious and responsible life of oneself, others, and the natural environment" (Herbarium., no date). The allotment, which is one of the different areas, was established in 2000. The space also has a medicinal allotment, a sensory allotment, a nursery, a labyrinth, and other areas. They use the allotment as a therapy to help people with mental problems that have been derivate to them by psychologists, occupational therapists. The patients already have an operational plan, and they help them through gardening to meet goals at different terms. The space is open to the public and free to enter. However, the allotment is not open for people to work outside of workshops or specific activities.

Figure 24. Herbarium.

Huertablock

It is a community organisation with a legal personality integrated by neighbours of Pudahuel. It was established in 2016 to recover the park that belongs to the community that was a dumpsite. As the park belongs to the community and not to the municipality, it was the neighbours' responsibility to maintain it. The allotment is inside the buildings' property but on the main street's side, visible to people passing by. The allotment is open for people to use, it is closed by a wooden fence to make a clear separation between their allotment and the common park, but it is easy to open. They organise activities and workshops to do in the allotment, for the members who live in the buildings, it is easier to participate in the plants' maintenance.

Third party copyright
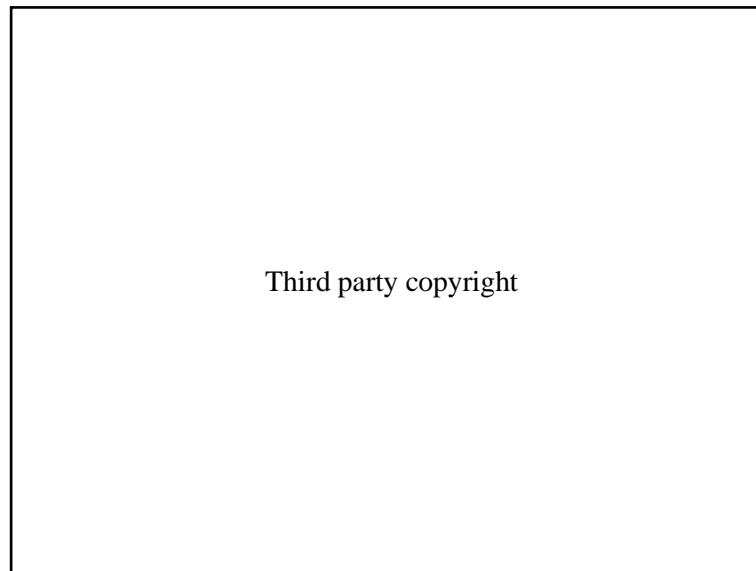
Figure 25. Huertablock, view from the outside. Source: Farias (2018)

Huerto Comunitario Mapu Wangulen

It is a community organisation integrated by neighbours of Puente Alto. It was established in 2013 to provide a space for the kids of the neighbourhood. The group selected an area that was a dumpsite and decided to clean it and create a playground with an allotment and trees. They based their work on the TiNi (*Tierra de Niños*, Children's Land) model of education from Peru and recognised by UNESCO. The municipality removed the allotment in 2015 to create a parking lot, so the allotment and the games were destroyed. The group maintained their activities focused on the kids in their new location, but children's attendance is lower due to the changes. They had to start creating the allotment by improving the soil's quality that was not suitable for sowing. The allotment is open for people at certain hours. Because they have a fence, they need to coordinate the opening hours between them, which are posted on a blackboard outside the fence. They organise the main activities, but they give the members the freedom to carry activities and actively lead the group.

Figure 26. Huerto Comunitario Mapu Wangulen in summer.

Viventerio

It is an allotment and production centre managed by the Municipality of Recoleta. It was created decades ago in an abandoned plot inside the *Cementerio General* (General Cemetery) by the Directorate of Environment, Cleanliness and Ornate. Originally was intended as a nursery to grow decorative plants for the municipal green areas, but after a while, it included medicinal herbs and vegetables. The large space has different zones with crops for the reproduction of herbs and vegetables. The allotment works on spreading knowledge about urban agriculture, food sovereignty and natural health. One person oversees and coordinates the activities; however, other people work on other areas to support the activities. The space has a nursery, composting area, sensory allotment and different terraces.

Figure 27. Viventerio.

Huerto Urbano Yungay

It is a community organisation integrated by the neighbours of Santiago. It is part of the ONG Cultivos Urbanos, promoting urban agriculture through projects, workshops and meetings. It was established in 2010 as an "open space for cultivation, education and learning about Urban Agriculture and environmental education, through disseminating knowledge and practices in the community" (Cultivos Urbanos, no date). The allotment is inside a property that was abandoned after the earthquake in 2010 in the limit of Parque Quinta Normal (the back part has a door to the park). The space was full of debris that they had to remove before the creation of the allotment. They organise the work depending on the number of activities they have in the allotment. In the periods of low season, they work in the allotment. During the high season, they meet and coordinate the activities. It has a greenhouse, composting area, vermiculture, recycling and a meeting area.

Third party copyright
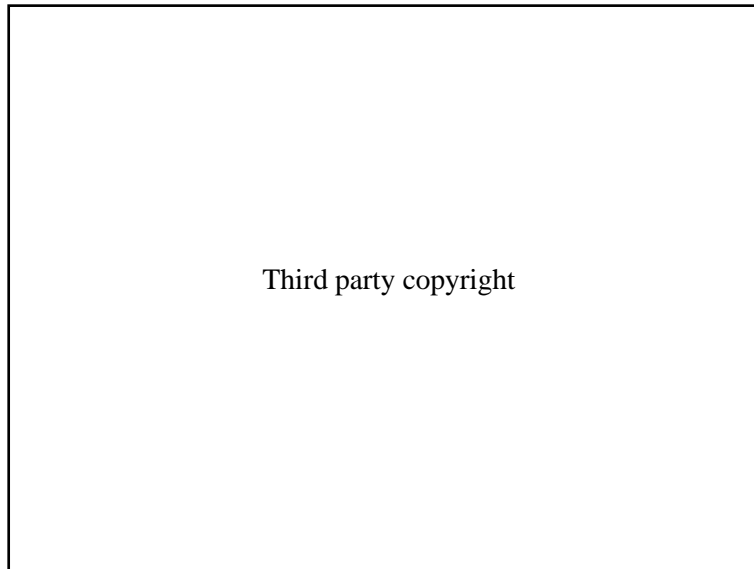
Figure 28. Terraces inside Huerto Urbano Yungay, view towards Parque Quinta Normal. Source: Huerto Urbano Yungay (2020)

Ecobarrio Patrimonial Yungay

It is a community organisation integrated by neighbours of Santiago and a neighbourhood council. The allotment is part of the concept of Ecobarrios (Eco Neighbourhoods). It was established in 2014 from a movement of defence of the neighbourhood Yungay and to declare it as *zona típica* (zone of national heritage), which was working on different areas and needed to create an organization that worked in sustainability topics in the neighbourhood as most of the work was in heritage. The allotment is located inside the backyard and requires coordination for the development of the activities since most participants visit during activities. They meet once every two months to coordinate their allotment activities, but their working time varies according to their time. The space has a greenhouse, a composting area and a hen house with chickens.

Figure 29. Terraces for cultivation left to seed in Ecobarrio Patrimonial Yungay.

Huerto Comunitario FAU

It is a student and community organisation integrated by students from the Faculty of Architecture and Urbanism of Universidad de Chile and the allotment's neighbours. The allotment started after an occupation of the campus in 2007 that lasted for months. The space was a dumpsite for the materials used in the Faculty, which are to areas that produced a lot of residues (Design and Architecture). In 2008, the students cleaned the space and used recycled materials to build some structures with the idea of creating a meeting point to talk about food in all its areas. The allotment is open for people to work on it. It is inside the university at the end of the campus. It is mainly visited and used for students and faculty members, but neighbours participate during activities. It has a composting area, grow bed and a resting area.

Figure 30. Terraces for the cultivation of Huerto Comunitario FAU at the end of summer, located inside of the Universidad de Chile campus.

Huerto Libertad

It is a community organisation with a legal personality integrated by the neighbours of Santiago. The allotment is on the property beside Plaza Libertad. There was a community centre, which offered workshops and activities. However, in 2014, they decided to focus on urban agriculture and started recovering the land, seeding and pruning in a process that lasted a year. The group emphasises their socio-environmental education objective, especially on youth and kinds of the neighbourhood. The space is open one or two days a week, usually Wednesday and Saturday, for people to work in the allotment. The space has a composting and recycling area. Also, they keep chicken and bees.

Figure 31. Part of the allotment of Huerto Libertad, located inside of the property.

Fundación Mingako

It is a community organisation with a legal personality integrated by neighbours of San Bernardo. It was started in 2015 by a group of friends who wanted to promote an ideal sustainable life in the community. They spend two years cleaning and clearing a space used as a garbage dump by a construction company. From that place, they recycled tons of iron, plastic, glass and wood. Due to the biological and health hazard, access was extremely limited during the two years. In 2017 they created the allotment, which was the first space they cleaned. The allotment is inside the property. It is opened on Saturday for the neighbours, during the rest of the week they work on other activities and workshops. The group organise and decide their activities based on their methodology and their research during their time cleaning the space. The space has a different section. It has composting, recycling and allotment areas, and some constructions where the activities are done.

Third party copyright
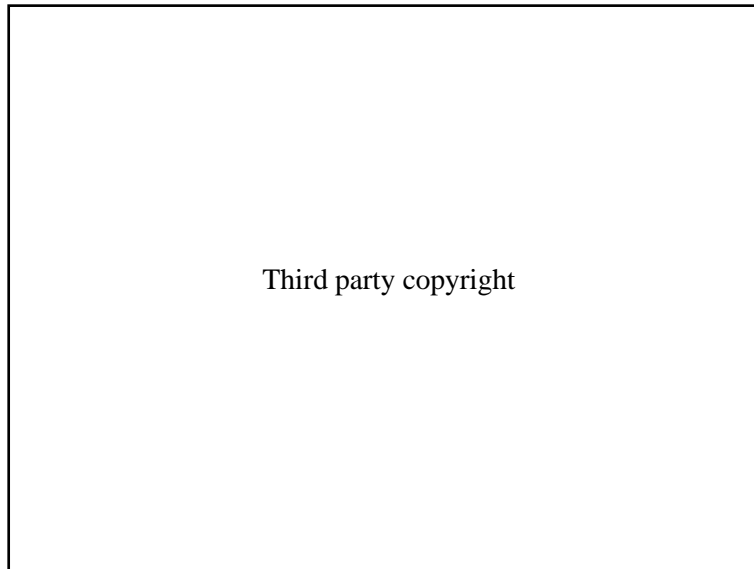
Figure 32. Terraces for the cultivation of vegetables at the inside of the property of Fundación Mingako. Source: Fundación Mingako (2019)

Colectivo Sustento

It is an NGO established in 2012 in San Miguel. Their work focuses on different areas. The most important for them is the community theatre work in the Colina 1 men's prison and with boys and young men in juvenile detention in SENAME centres. Their activities involve "community theatre and arts, sustainability and social justice" (Colectivo Sustento, no date). The last part is done by the allotment and their Fair Groceries network, which sells products from the allotment and other healthy food mostly bought directly from the growers. The allotment is used to cover some basic food needs of collective members, but it is also used as a place for training to participants and transition towards the ex-inmates social reinsertion, who can work in the allotment while waiting to get a job. The allotment is open for people to work there, but because the place corresponds to a house owned by one of the ONG members, the access is more restricted and required coordination to use it, but it is opened to the public when they have activities. They have two areas with allotments, one is in the backyard, and another is on the front, which uses the street space. The ONG has beehives, a greenhouse, composting area.

Figure 33. Allotment of Colectivo Sustento located at the back of the house.

Appendices 2. List of Urban Agriculture Projects Interview

Interviewee ID	Length of interview	Date of Interview	Affiliation
CS1	01:50:52	10/11/2018	Huerto Comunitario La Berenjena
CS2	00:50:25	15/11/2018	Ecobarrio Patrimonial Yungay
CS3	00:53:43	26/11/2018	Huertas Urbanas de La Reina
CS4	00:53:43	26/11/2018	Huertas Urbanas de La Reina
CS5	00:46:59	26/11/2018	Huertas Vecinas Antu Newen
CS6	00:44:56	07/12/2018	Biohuerto UC
CS7	00:48:08	08/12/2018	Huerto Urbano Yungay
CS8	01:22:54	19/12/2018	Fundación Mingako
CS9	01:22:54	19/12/2018	Fundación Mingako
CS10	01:30:29	20/12/2018	Huerto Comunitario Pu Pichikeche
CS11	00:47:59	14/01/2019	Huerto Popular Observatorio al Sur
CS12	01:04:02	14/01/2019	Huerto San Francisco UC
CS13	00:55:41	16/01/2019	Huerto Libertad
CS14	00:54:48	18/01/2019	Herbarium
CS17	01:22:28	01/02/2019	Huerto Comunitario Mapu Wangulen
CS18	01:33:09	04/02/2019	Huertablock
CS19	01:33:09	04/02/2019	Huertablock
CS20	01:33:09	04/02/2019	Huertablock
CS21	01:13:44	05/02/2019	Huerta Comuniaria Las Campanas
CS22	01:13:44	05/02/2019	Huerta Comuniaria Las Campanas
CS23	01:13:44	05/02/2019	Huerta Comuniaria Las Campanas
CS24	01:13:44	05/02/2019	Huerta Comuniaria Las Campanas
CS25	01:39:36	06/02/2019	Ecobarrio Villa Santa Elena
CS26	00:49:24	14/02/2019	Viventerio
CS27	01:37:36	15/03/2019	Colectivo Sustento
CS28	01:37:36	15/03/2019	Colectivo Sustento
CS29	00:50:13	21/03/2019	Huerto Comunitario FAU
CS30	00:50:13	21/03/2019	Huerto Comunitario FAU

Appendices 3. List of scholars Interviews

Interviewee ID	Length of interview	Date of Interview	Affiliation
E1	00:45:28	13/11/2018	*Universidad de Chile* (University of Chile)
E2	00:59:32	19/11/2018	*Pontificia Universidad Católica* (Pontifical Catholic University)
E3	00:46:10	08/03/2019	*Pontificia Universidad Católica* (Pontifical Catholic University)
E4	00:29:26	14/03/2019	*Fundación MiParque* (MiParque Foundation)
E5	01:20:06	28/01/2019	Chakrana
E6	01:20:06	28/01/2019	Chakrana
E7	0:56:50	29/03/2019	*Pontificia Universidad Católica* (Pontifical Catholic University)

Appendices 4. List of the state interviews

Interviewee ID	Length of interview	Date of Interview	Affiliation
S1	01:02:47	07/03/2019	Municipalidad de Macul
S2	01:02:47	07/03/2019	Municipalidad de Macul
S3	00:49:46	11/03/2019	Municipalidad de La Reina
S4	01:17:32	15/03/2019	Municipalidad de Santiago
S5	00:42:48	21/03/2019	Municipalidad de Peñalolén

Appendices 5. Summary of Workshops provided by the UAP during March 2018 – March 2019

Theme	Workshop topics	UAPs	
Allotment Elements	Fertilizer, Growing Bed, Native Flowers, Plagues, Seeds, Soil, Urban Agriculture, Water	Viventerio Huertablock Huerto Libertad Colectivo Sustento Fundación Mingako Huerto Urbano Yungay	Ecobarrio Villa Santa Elena Huertas Urbanas de La Reina Huerto Comunitario La Berenjena Huerto Comunitario Pu Pichikeche Huerto Popular Observatorio al Sur Huerto Comunitario Mapu Wangulen
Techniques	Apiculture, Bio construction, Bird watching, Composting, Crop Association and Rotation, Ecological Allotment, Allotment Design, Hydroponics, Mother Tinctures, Permaculture, Seed bombs, Thermofusion, Vermiculture, Vertical Allotments.	Viventerio Huertablock Huerto Libertad Fundación Mingako Huerto San Francisco Huerto Urbano Yungay	Ecobarrio Villa Santa Elena Huertas Vecinas Antu Newen Ecobarrio Patrimonial Yungay Huerto Comunitario Pu Pichikeche Huerto Popular Observatorio al Sur Huerto Comunitario Mapu Wangulen
Health	Aromatherapy, Deodorant, Face Masks, Gel, Household cleaning products, Medicinal Herbs, Meditation, Mouthwash, Natural Creams, Natural Medicine, Ointment, Phytocosmetics, Phytotherapy, Sanitary Pads, Soap, Therapeutic Landscaping, Toothpaste, Yoga	Viventerio Herbarium Huertablock Huerto Libertad	Urbano Urbano Yungay Ecobarrio Villa Santa Elena Huerto Comunitario Pu Pichikeche Huerto Comunitario Mapu Wangulen
Crafts	Binding, Carpentry, Dyed in paper, Embroidery, Sculptures, Knitting, Mandalas, Mosaics, Mud Construction, Prints, Serigraphy, Xylography	Huertablock Huerto Libertad Fundación Mingako Huerto Urbano Yungay	Huerto Comunitario La Berenjena Huerto Popular Observatorio al Sur Huerto Comunitario Mapu Wangulen

Theme	Workshop topics		UAPs
Food	Bread, Cooking, Fermented, Healthy Food, Seasonal Food	Viventerio Herbarium Huerto Urbano Yungay	Ecobarrio Villa Santa Elena Huertas Urbanas de La Reina Huerto Comunitario La Berenjena Huerto Comunitario Mapu Wangulen
Waste	Organic Recycling, Organic Waste, Recycling, Textile Reuse, Waste Management, Waste Reuse	Huertablock Huerto Libertad Fundación Mingako Huerto Urbano Yungay	Huerto Comunitario FAU Ecobarrio Villa Santa Elena Huertas Urbanas de La Reina Ecobarrio Patrimonial Yungay
Social and Sustainable theories	Agroecology, Biodiversity, Biological Corridors, Climatic Change, Conservation, Ecology, Feminism, Food Sovereignty, Herbology, Mining conflict, Renewable Energy, Renewable Resources, Urban Agroecology, Water shortage	Herbarium Huertablock Biohuerto UC Huerto Libertad Huerto Comunitario FAU	Ecobarrio Villa Santa Elena Huerto Comunitario La Berenjena Huerto Comunitario Pu Pichikeche Huerto Popular Observatorio al Sur
Social Activities	Conversations and Meeting, Documentaries, Ecoferia, Movies	Huerto Libertad Colectivo Sustento Fundación Mingako Huerto Comunitario FAU	Ecobarrio Villa Santa Elena Huerto Comunitario La Berenjena Huerto Comunitario Mapu Wangulen
Silviculture Practices	Seedlings, Irrigation, Propagation, Pruning, Cuttings, Sowing, Transplants, Cultivation	Viventerio Herbarium Huertablock Huerto Libertad Fundación Mingako Huerto Urbano Yungay	Huerto Comunitario FAU Ecobarrio Villa Santa Elena Huertas Urbanas de La Reina Huerto Comunitario Pu Pichikeche Huerto Comunitario Mapu Wangulen

Appendices 6. Themes and codes used in the research

Codes for the theme of Social

Social	Emergence Reasons	Emergence of UAP
		Interest of UA
		Municipality work on UAP
		Objective of the UAP
		Other sustainability activities on the UAP
		Reasons for starting UAP
		Sustainable work within UAP
		UAP origins
		Year of Creation
	Funding	Doesn't want funding from public sector
		Funding
		Funding state
		Problems with funding
	Governance	Governance
		Municipality helps civil society
		Network
		Relation between actors in UAP
		Relation between municipality and academia
		Relation between municipality and public sector
		Relation between state and municipality
		Relation municipality with other actors (help)
		Relation with academia
		Relation with municipality
		Relation with other UAP
		Relation with the private sector
		State or municipality and civil society relationship on green areas
		Work with other groups

	Impact	Benefits	Land oriented benefits of UAP
			Personal benefits of UAP
			UA health benefits
		UA impact on the city environment	
		UA repercussions-impact	
	Limitations	Civil society limitations	
		Limitations	
	Members and Location	Members	
		Member's location	
		Scope of UA (commune)	
	Nature	Disconnection with nature	
	Participation	Participation	
		Participation and planning	
	Problems	Community problems with UA	
		Distrust in the municipality	
		Lack of time	
	Question	Funding support question	
		Overall help question	
		Technical and knowledge support question	
	Resistance	Green areas used as resistance	
		Ideologies	
		Politic views on the group	
		Rejection of political views	
		Relation with politicians and politics	

		UAP use as resistance	
	Social	Social benefits of UAP	
		Social connections in UAP	
		Social instead of food	
		UA as social participation	
		UA in social relationships and planning	
		UAP and food	

Codes for the theme of Education

Education	Education	Educational benefits UAP
		Environmental education
		UAP as educative spaces
		Workshops
	Knowledge	Knowledge
		Migration
	Neoliberalism	Green areas as marketing (neoliberalism)
		Marketing
		Moda
		Moda (environment)
		Muni and economic interest
		Neoliberalism
		Neoliberalism in planning
	Topics	Seeds issues
		Water

Codes for the theme of Environment

Environment	Change on perception	Change on Sustainability perception	
	Critiques	Critiques to academia in UA and sustainability	Problems with university
			University and planning
		Critiques to CS	
		Critiques to the municipality on sustainability and UA	
		Critiques to other UAP	
		Critiques to PS on Sustainability	
		Critiques to state on sustainability or UA	
		Lack of support from the state on UA	
	Perception	Change of perception of the municipality	
		Civil society and sustainability	
		Civil society environmental awareness	
		Civil society perception of green areas, sustainability, environment	
		Civil society perception of society and sustainability	
		Civil society work on green areas	
		Group perception of sustainability or UA	
		Perception about Public Sector	
		Perception from the state on sustainability	
		Perception of nature, green areas	
		Public Sector on UA	

		State environmental awareness
		State perception of green
		Sustainable ideas for the neighbourhood
		UA and sustainability
	Role	Role of Civil Society
		Role of women
		Role of Public Sector
		Role of state

Codes for the theme of Land

Land	Land or space	Land ownership	
		Problems on or lack of public spaces	
		Problems with space or land	
		Recovering of spaces or land	Security
		UA as open a space	
	Law	Civil Society need for policies and changes	
		Definition of Green areas and their problems	
		Green Infrastructure concept	
		Lack of laws and policies on UA	
		Legal personality	
		Municipality accreditation	
		Municipality structure, directorates	
		Political views on municipality	
	Planning	Planning	
		Public Sector in planning	
		Sustainability and planning	
	Socioeconomic	Environmental socio differences	
		Environmental awareness of rich people	
		Need for quality in green spaces	
		Socioeconomic difference	
		Socioeconomic difference in green areas	
		State work on poor municipalities	
		Sustainability and economy	
	UA work	Maintenance	Civil society help in the maintenance
			Civil society problem for maintenance Needs and problems of UAP Problems in maintaining UAP
		Techniques	Agriculture techniques used
			Problems for starting UAP
			UAP working method
			Work and organisation in UAP
		Work on GA and UA	Municipality work on increase public spaces
			Municipality work on sustainability
			PS work on green spaces

Appendices 7. Interview guide for interviews

This section presents the interview guide that was used to collect qualitative data in the specific context of Santiago. The interview guide was developed and used in Spanish and is translated here into English.

Interview Guide for Urban agriculture projects

Oriented to the allotment

1. Tell me about the allotment, when did it originate, and why? Who owns the land?

2. How many people actively participate in the allotment?

3. Where do people who participate in the allotment come from? (Neighbours of the sector, of the commune, of other communes)

4. How do you coordinate to work? Do you do it through meetings, or do you have an organization?

6. How is the allotment financed? (self-financing, projects, external support)

7. Do you receive external support from other groups, private sectors, or government companies like the municipality? What kind of support?

8. Do you provide technical or financial support to other people, groups or allotments? What kind of support? (workshops, instructions, seeds) and to whom?

9. Do you have relationships or connections with other allotments? Do you participate in meetings or events together?

10. Do you perceive a change in the people who work in the orchards after a while?

Oriented to the general perception of green areas and urban allotments

12. Are these urban allotment projects a temporary trend, or have they arrived to stay in Santiago?

13. What are the factors that limit the groups that are developing green area projects?

14. Do you see a change in relationships between groups or people related to green areas and urban allotments in Santiago?

15. What are the benefits that urban allotments deliver to people and society?

16. Do you think there is an increase in the environmental awareness of the population? And in the private sector? And of the government?

Oriented to the perception of the actors within sustainability and green areas

18. What has been the private sector's role or community in achieving the city's sustainable development?

19. What has been the state's role in achieving or not achieving a better sustainability standard?

20. What are the main environmental discourses among the actors involved in producing green area projects in Santiago?

21. What organizations or people do you see as potential partners or assistants? Why?

22. If you need help, which person or organization do you need most? Why?

23. If you wish to obtain financial support, which person or organization would you approach?

24. If you want to get technical or knowledge support, which person or organization would you approach?

25. Can you suggest 3 people or groups to interview?

Interview Guide for Experts

Urban Agriculture Projects

1. Why do you think that new green area projects have emerged in recent years in Santiago?

2. How relevant are these projects to society's perception of nature?

3. Are these area projects a temporary trend in Santiago?

4. What are the factors that limit the groups that are developing green area projects?

5. What are the main impacts on society and the planning of green area projects?

Actors

6. Do you see a change in the relationships between the actors related to Santiago's areas?

7. Do you think there is an increase in the environmental awareness of the population? And of the market? And of the government?

8. Which actors do you see pressing the debate on sustainability / green areas in Santiago? Why?

9. Who are the external actors/groups/organizations supporting green area projects?

10. What are the main environmental discourses among the actors involved in producing green area projects in Santiago?

Role / Networks

12. How are the state's relationship, private sector, and community related to green areas?

13. What is the role of the state, private sector and community in green area projects?

14. What has been the state's role in achieving or not achieving a better sustainability standard?

15. What is the role of the market/community in the emergence of more sustainable development?

16. What is the perception of green areas in sustainability policies in Santiago?

17. How do you think that neoliberalism has affected social structures?

Interview Guide for Municipalities

1. Tell me how the work of the municipality has been with the environment / green areas? What kind of activities have you focused on?

2. What has been the state's role in achieving or not achieving a better sustainability standard?

3. How has the relationship with the community been?

4. What kind of help do they provide for carrying out activities? Activities of urban allotments.

5. Do you help others with financing, technical resources?

6. What factors limit the groups that are developing projects in green areas or related to the environment?

7. Have you observed a change in the community's consciousness or attitude regarding the environment / green areas?

8. What have been the greatest observable impacts in the community with the increase in projects?

9. How is the relationship with the private sector? Do they also actively participate with you in the projects?

10. Do you see a change in the relationships between the actors related to Santiago's areas?

11. What is the role of the market/community in the emergence of more sustainable development?

12. Are these projects a temporary trend in Santiago?

13. Do you think there is an increase in the environmental awareness of the population? And of the market? And of the government?

14. How are the relationship of the state, private sector, and community related to green areas?

15. What is the role of the state, private sector and community in green area projects?

16. How do you think that neoliberalism has affected social structures?

17. How do you think that neoliberalism has affected urban nature?

Appendices 8. Information Sheet

Information Sheet for Members of Project

UCL Research Ethics Committee Approval ID Number: **13885/001**

YOU WILL BE GIVEN A COPY OF THIS INFORMATION SHEET

Title of Study: Green Infrastructure under the constraints of Neoliberalism: networks, discourses and story-lines in Santiago, Chile.
Department: Bartlett School of Planning. University College London
Name and Contact Details of the Researcher(s): Ruth Sepulveda [institutional email of researcher]
Name and Contact Details of the Principal Researcher: [institutional email of researcher]

You are being invited to take part in a PhD research project. Before you decide, it is important for you to understand why the research is being done and your participation. Please take time to read the following information carefully and discuss it with others if you wish. Ask me if there is anything that is not clear or if you would like more information. Take time to decide whether you wish to take part. Thank you for reading this.

What is the project's purpose?

The emergence of green areas projects has allowed the growth of new initiatives of collaboration between actors who were previously relegated to a passive position or ignored. However, it is unclear how the current neoliberal economic and political scenario has allowed the participation and collaboration of actors in projects to improve the urban environment when neoliberal ideas are still strongly present in planning decisions. The private sector continues its influence in the modifications of legal documents.

This research investigates the modifications on networks, discourses and storylines resulting from the emergence of green infrastructure projects in Santiago de Chile by linking environmental ideas and neoliberal transformation driven by the development of a new partnership between actors related to urban green areas.

Why have I been chosen?

You have been chosen because you are an integrant of one of the projects that I will be analysing as a case for my PhD research. Other participants will be selected on the same criteria.

Do I have to take part?

It is up to you to decide whether to take part. If you decide to take part, you will be given this information sheet to keep and be asked to sign a consent form. You can withdraw at any time without giving a reason. If you decide to withdraw, you will be asked what you wish to happen to the data you have provided up that point.

What will happen to me if I take part?

If you decide to participate in this study, you will be asked to read and sign a consent form to show that you understand what is required of you and agree to participate. After you sign this form, the interview will start. This interview should take about one hour to one hour and a half but can be shorter if you think that would be too long. If, for some reason, it takes longer than that, we will stop and decide together whether to continue now, take a short break, or continue later. The interview has questions about your participation in the group/project, information about your group/project and opinion on some topics. Your name will be kept confidential, and just your group/project will be mentioned, as this study research specific projects.

Will I be recorded and how will the recorded media be used?

The audio recorded during this research will be used only for analysis in this research. No other use will be made of them without your written permission, and no one outside the project will be allowed access to the original recordings. The records will be kept for the duration of the transcription, and then they will be destroyed.

Will my taking part in this project be kept confidential?

All the information collected about you during the research will be kept strictly confidential. You will not be able to be identified in any ensuing reports or publications. Identifiable data and audio will be stored securely in a locked metal filing cabinet in the researcher office at UCL or a password-protected computer account. All data from individual participants will be coded so that their anonymity will be protected in any reports, thesis documents, and presentations that result from this work.

Limits to confidentiality

Please note that confidentiality may not be guaranteed; due to the limited size of the participant sample.

What will happen to the results of the research project?

This study's results will be reported in a graduate thesis and may also be published in articles and presented in conferences. You can obtain a copy of the results if you wish to. Confidentiality and anonymity will be maintained, and it will not be possible to identify you from any publication.

Data Protection Privacy Notice

Notice: The data controller for this project will be University College London (UCL). The UCL Data Protection Office provides oversight of UCL activities involving the processing of personal data, and can be contacted at data-protection@ucl.ac.uk.

Further information on how UCL uses participant information can be found here:

www.ucl.ac.uk/legal-services/privacy/participants-health-and-care-research-privacy-notice

Your personal data will be used for the purposes outlined in this notice. The categories of personal data used will be as follows: **Name** and **Work position.**

Your personal data will be processed so long as it is required for the PhD research project. If we are able to anonymise or pseudonymise the personal data you provide we will undertake this and will endeavour to minimise the processing of personal data wherever possible.

If you are concerned about how your personal data is being processed, or if you would like to contact us about your rights, please contact UCL in the first instance at data-protection@ucl.ac.uk.

Contact for further information

If you have any questions or concerns about what you are asking of you, or need further information after this interview, please contact me:

Ruth Sepulveda Marquez
[Phone number in the UK]
[Institutional email of the researcher]
Thank you for reading this information sheet and for considering taking part in this research study. ---

Information Sheet for Experts

UCL Research Ethics Committee Approval ID Number: **13885/001**

YOU WILL BE GIVEN A COPY OF THIS INFORMATION SHEET

Title of Study: Green Infrastructure under the constraints of Neoliberalism: networks, discourses and story-lines in Santiago, Chile.
Department: Bartlett School of Planning. University College London
Name and Contact Details of the Researcher(s): Ruth Sepulveda [institutional email of researcher]
Name and Contact Details of the Principal Researcher: [institutional email of researcher]

You are being invited to take part in a PhD research project. Before you decide, it is important for you to understand why the research is being done and what your participation will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask me if there is anything that is not clear or if you would like more information. Take time to decide whether you wish to take part. Thank you for reading this.

What is the project's purpose?

The emergence of green areas projects has allowed the growth of new initiatives of collaboration between actors who were previously relegated to a passive position or ignored. However, it is unclear how the current neoliberal economic and political scenario has allowed the participation and collaboration of actors in projects to improve the urban environment when neoliberal ideas are still strongly present in planning decisions. The private sector continues its influence in the modifications of legal documents.

This research investigates the modifications on networks, discourses and storylines resulting from the emergence of green infrastructure projects in Santiago de Chile by linking environmental ideas and neoliberal transformation driven by developing a new partnership between actors related to urban green areas.

Why have I been chosen?

You have been researching and have experience on the main topics related to this PhD research. Other participants will be selected on the same criteria.

Do I have to take part?

It is up to you to decide whether to take part. If you do decide to take part, you will be given this information sheet to keep and be asked to sign a consent form. You can withdraw at any time without giving a reason. If you decide to withdraw, you will be asked what you wish to happen to the data you have provided up that point.

What will happen to me if I take part?

If you decide to take part in this study, you will be asked to read and sign a consent form to show that you understand what is required of you and agree to participate. After you sign this form, the interview will start. This interview should take about one hour to one hour and a half, but it can be shorter if you think that would be too long. If, for some reason, it takes longer than that, we will stop and decide together whether to continue now, take a short break, or continue later. The interview includes questions about your opinion on some topics due to your expertise. Your name and institutions will be kept confidential; just the areas of your research will be mentioned.

Will I be recorded and how will the recorded media be used?

The audio recorded during this research will be used only for analysis in this research. No other use will be made of them without your written permission, and no one outside the project will be allowed access to the original recordings. The records will be kept for the duration of the transcription, and then they will be destroyed.

Will my taking part in this project be kept confidential?

All the information collected about you during the research will be kept strictly confidential. You will not be able to be identified in any ensuing reports or publications. Identifiable data and audio will be stored securely in a locked metal filing cabinet in the researcher office at UCL or a password-protected computer account. All data from individual participants will be coded so that their anonymity will be protected in any reports, thesis documents, and presentations that result from this work.

Limits to confidentiality

Please note that confidentiality may not be guaranteed; due to the limited size of the participant sample.

What will happen to the results of the research project?

This study's results will be reported in a graduate thesis and may also be published in articles and presented in conferences. You can obtain a copy of the results if you wish to. Confidentiality and anonymity will be maintained, and it will not be possible to identify you from any publication.

Data Protection Privacy Notice

Notice:

The data controller for this project will be University College London (UCL). The UCL Data Protection Office provides oversight of UCL activities involving the processing of personal data, and can be contacted at data-protection@ucl.ac.uk. UCL's Data Protection Officer can also be contacted at data-protection@ucl.ac.uk.

Further information on how UCL uses participant information can be found here:

www.ucl.ac.uk/legal-services/privacy/participants-health-and-care-research-privacy-notice

Your personal data will be used for the purposes outlined in this notice. The categories of personal data used will be as follows: **Name** and **Work position.**

The legal basis that would be used to process your *personal data* will be performance of a task in the public interest.

Your personal data will be processed so long as it is required for the PhD research project. If we are able to anonymise or pseudonymise the personal data you provide we will undertake this, and will endeavour to minimise the processing of personal data wherever possible.

You have certain rights under data protection legislation in relation to the personal information that we hold about you. These rights apply only in particular circumstances and are subject to certain exemptions such as public interest (for example the prevention of crime). They include:

The right to access your personal information;

The right to rectification of your personal information;

The right to erasure of your personal data;

The right to restrict or object to the processing of your personal data;

The right to object to the use of your data for direct marketing purposes;

The right to data portability;

Where the justification for processing is based on your consent, the right to withdraw such consent at any time; and

The right to complain to the Information Commissioner's Office (ICO) about the use of your personal data.

If you are concerned about how your personal data is being processed, or if you would like to contact us about your rights, please contact UCL in the first instance at data-protection@ucl.ac.uk.

If you remain unsatisfied, you may wish to contact the ICO. Contact details, and further details of data subject rights, are available on the ICO website at: https://ico.org.uk/for-organisations/data-protection-reform/overview-of-the-gdpr/individuals-rights/

16. Contact for further information

If you have any questions or concerns about what you are asking of you, or need further information after this interview, please contact me:

Ruth Sepulveda Marquez
[phone number in the UK]
[institutional email of researcher]

Thank you for reading this information sheet and for considering to take part in this research study. ---

Appendices 9. Consent Form for Interviewee

Consent Form for Integrant of Project in Research Studies

Please complete this form after you have read the Information Sheet and/or listened to an explanation about the research.

Title of Study: Green Infrastructure under the constrains of Neoliberalism: networks, discourses and story-lines in Santiago, Chile.
Department: Bartlett School of Planning. University College London
Name and Contact Details of the Researcher(s): Ruth Sepulveda [institutional email of researcher]
Name and Contact Details of the Principal Researcher: [institutional email of researcher]
Name and Contact Details of the UCL Data Protection Officer: [name and contact of UCL office]
This study has been approved by the UCL Research Ethics Committee: Project ID number: 13885/001

Thank you for your interest in taking part in this research. The person organising the research must explain the project to you before you agree to take part. If you have any questions arising from the Information Sheet or explanation already given to you, please ask the researcher before you decide whether to join in. You will be given a copy of this Consent Form to keep and refer to at any time.

I confirm that I understand that by ticking each box below I am consenting to this element of the study. I understand that it will be assumed that unticked boxes mean that I DO NOT consent to that part of the study. I understand that by not giving consent for any one element that I may be deemed ineligible for the study.

		Tick Box
1.	I confirm that I have read and understood the Information Sheet for the above study. I have had an opportunity to consider the information and what will be expected of me. I have also had the opportunity to ask questions which have been answered to my satisfaction and I would like to take part in an individual interview.	
2.	I consent to participate in the study. I understand that my personal information such as name and work position will be used for the purposes explained to me. I understand that according to data protection legislation, 'public task' will be the lawful basis for processing.	
3.	I understand that all personal information will remain confidential and that all efforts will be made to ensure that my comments cannot be identified, but I give permission to connect my role with my comments (but not the title of my position).	
4.	I understand that confidentiality cannot be guaranteed due to the limited size of the participant sample.	
5.	I understand that if I decide to withdraw, any personal data I have provided up to that point will be deleted unless I agree otherwise.	
6.	I understand that my data gathered in this study will be stored anonymously and securely.	
7.	I understand that the data will not be made available to any commercial organisations but is solely the responsibility of the researcher undertaking this study.	
8.	I understand that I will not benefit financially from this study or from any possible outcome it may result in in the future.	
9.	I understand that the information I have submitted will be published as a report and I wish to receive a copy of it. Yes/No	
10	I consent to my interview being audio recorded and understand that the recordings will be destroyed following transcription. To note: If you do not want your participation recorded you can still take part in the study.	
11	I am aware of who I should contact if I wish to lodge a complaint.	
12	Use of information is for this project only and future documents resulting from this research. I understand that the Principal Researcher may have access to my anonymised data.	

_____   _____   _____
Name of participant   Date   Signature

Appendices 10. Recruitment Letter

Sample recruitment letter (or e-mail) for urban agriculture projects

Dear [name],

My name is Ruth Sepulveda. I am a PhD student at University College London in the United Kingdom. I am researching urban agriculture projects in Santiago, and I would like to invite you to participate in my study as you are work in a garden.

My project tries to see how urban agriculture projects emerge as resistance groups to the current system in a neoliberal reality. I am interested in understanding how Santiago's projects relate to each other and the relationship created with the other actors. Also, I am interested in knowing how the concept of green areas and urban agriculture has changed over time due to these projects and established social connections.

If you agree to participate, I will interview you with questions related to your research area. The interview will be recorded in audio with your permission, and your comments and opinions will be treated with absolute confidentiality. The interview lasts about an hour. If you agree to participate, we can decide on the date and time for the interview. Any question or information, please contact me. Your participation would be of great help to my research.

Waiting for your response,

Best regards,

Ruth Sepulveda Marquez, MSc
PhD Candidate in Planning Studies
The Bartlett School of Planning
University College London (UCL)

Sample recruitment letter (or e-mail) for experts

[Date]

[Address or email potential interviewee]

Dear [name],

My name is Ruth Sepulveda. I am a PhD student at University College London in the United Kingdom. Because of your research subject, I am writing to invite you to participate in my study related to the issues of neoliberalism, governance, actors, and green areas.

My project tries to see how urban agriculture projects emerge as resistance groups to the current system in a neoliberal reality. I am interested in understanding how Santiago's projects relate to each other and the relationship created with the other actors. Also, I am interested in knowing how the concept of green areas and urban agriculture has changed over time as a result of these projects and established social connections.

If you agree to participate, I will interview you with questions related to your research area. The interview will be recorded in audio with your permission, and your comments and opinions will be treated with absolute confidentiality. The interview lasts about an hour. If you agree to participate, we can decide on the date and time for the interview. I will be in Santiago during March and the beginning of April.

Waiting for your response,

Best regards,

Ruth Sepulveda Marquez, MSc
PhD Candidate in Planning Studies
The Bartlett School of Planning
University College London (UCL)