Public housing, Private priorities:  
The invisible dynamics in low-income housing allocation in urban Peru,  
the case of CSP-Techo Propio

by

Fiorella Belli Ferro  
B.A. in Social Sciences with mention in Anthropology by Pontificia Universidad Católica del Perú (2012)

Mora Orensanz  
B.A. in Architecture Universidad Nacional de La Plata (2016)

Submitted to the Department of Urban Studies and Planning in partial fulfillment of the requirements for the degree of

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Abstract
This thesis analyzes Techo Propio, Peru’s leading affordable housing program for the last 20 years. Following the neoliberal turn in housing policies, the Peruvian government reduced its role to solely subsidizing the low-income housing demand while housing production and delivery was left entirely in the hands of the real-estate industry. We specifically analyze the component Construcción en Sitio Propio (CSP), which fully subsidizes the construction of 35 m²-houses in family-owned lots. Given the limited information and studies available on this subprogram, we were keen to understand how CSP is currently being implemented and, especially, how subsidies are allocated to families and what are the city-wide implications.

Through a combination of spatial analysis and in-depth interviews with diverse actors in the Techo Propio ecosystem, this thesis elucidates the housing allocation process as it is being implemented, beyond the official narrative. Our findings identify which families actually become beneficiaries and the spatial consequences of this model at the neighborhood, city, and national scales. We hope our findings and conclusions can help reflect on potential improvements for this and similar programs, and ultimately contribute to discussions on the roles the public and private sectors should have in the provision of affordable housing across Latin America.

Thesis Advisor: Lawrence J. Vale. Associate Dean, School of Architecture and Planning & Ford Professor of Urban Design and Planning, Department of Urban Studies and Planning, MIT.

Thesis Reader: Nora Libertun de Duren, Senior Specialist in the Urban Development and Housing Sector at the Inter-American Development Bank (IDB).
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When filling-in the application for a joint thesis, we stumbled across the following phrase: “In certain circumstances, collaborative research leading to a joint thesis may be advantageous in a master’s degree program.” It was buried in the requirements of the application. Little did we know that our own experience would be advantageous on so many different levels. For us, this joint thesis represented an enriching process that blended friendship, respect, discussion, and support.

This joint thesis brings together a collective effort that includes professors, researchers, friends, family, and multiple people in Peru, all of whom generously shared their time and experiences to bring this thesis to life.

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Introduction

Latin America has experienced rapid levels of urban growth in the last decades and currently has the highest urbanization rate in the developing world given that approximately 80% of the population lives in cities (UN, 2009). According to the IDB (2010), Asian and Latin American countries have outpaced the rate at which the process of urbanization has unfolded globally. As housing occupies over 50% of the entire urban surface (Asian Development Bank and Inter-American Development Bank, 2014), it is not surprising that its demand has drastically increased with such rapid urban growth. The opportunities to access housing have not been able to meet such demand given that the private market of housing and land continues to be unaffordable. As a result, the lowest-income population is pushed towards the outskirts of cities where they undertake self-construction practices on vacant land. Informality is still the main way through which the most vulnerable families access housing in cities across Latin America. Housing, therefore, is not only a main driver of urban development, but also has great implications for equity in cities.

In this context, the largest gap regarding Latin American housing deficit has been repeatedly stated by scholars to be the quality of the housing rather than the lack of it. The quantitative deficit only represents 6% of the total housing deficit while the qualitative deficit is responsible for 94% (Adler and Vera, 2018). While the quantitative deficit is quite straightforward, the qualitative housing deficit can assume a wide range of definitions, which inevitably impact the assessment of living conditions of city dwellers. Traditionally, the quality of housing has been defined by its physical conditions—wall and roof materials, sewage, electricity, construction techniques, etc.—without considering the characteristics of the context where it exists. The literature on affordable housing suggests new approaches to redefine housing quality, expanding its criteria to incorporate factors such as access to open spaces, transportation services, educational opportunities, diversified neighborhood activities (land uses), a safe and healthy environment, among others. As Vale et al. state, “Affordable housing design needs to encompass a broader view of what design affords. To maximize the capacity of affordable housing to support the resilience of cities, its advocates must ask it to engage as many as possible of the following four criteria: (1) Support the community’s social structure and economic livelihoods of residents; (2) Reduce the vulnerability of residents to environmental risks and stresses; (3) Enhance the personal security of residents in the face of violence or threats of displacement; (4) Empower communities through enhanced capacity to share in their own governance.”

National housing programs in Latin America have usually been the main drivers behind the production of housing targeted to low and middle-income families through different mechanisms. Overall, national programs have concentrated most of their efforts on promoting new housing rather than improving the conditions of the existing low-quality ones. However, the provision of new housing does not meet the existing needs and financial capacities of the most vulnerable population. The construction of new affordable housing through these national programs has had diverse consequences on the growth of Latin American cities. On one hand, many of these programs have
generated monotonous, isolated, and low-quality multi-family projects in the outskirts of cities. On the other hand, other programs have promoted the construction of individual low-density housing (Libertun de Duren, 2017).

Even though these issues are transversal to Latin American countries, they vary when analyzing public policies, incentive systems, and rights related to housing. In the case of Peru, Fernandez-Maldonado (2015) has stated how the national housing programs lack solutions targeted to the lowest-income families, which has left them with no other choice but to continue accessing housing through informal processes.

Fondo Mi Vivienda is currently the main housing program in Peru attending low and middle-income families through the provision of direct subsidies, the promotion of new housing units, and facilitating the improvement of the existing housing landscape. Techo Propio is coordinated by Fondo Mi Vivienda (FMV), a public company that depends on the Ministry of Housing and receives public funds to subsidize housing and promote the real-estate industry in the country. Within the Techo Propio program, we can differentiate three main components: acquisition of a new house (AVN), construction on a family-owned site (CSP), and structural house improvement (MV). Over the last two decades, the number of subsidies and investment received by each of these components has varied significantly. The AVN component has delivered 69,983 subsidies with an investment of about $448 million, CSP holds the highest subsidy allocation with 340,212 and an investment of 1.89 billion, and lastly, MV has delivered 10,199 with an investment of 22 million.

Considering the aforementioned predominant efforts of governments across Latin America towards producing multi-family housing developments, the CSP component stood out among the other two, not only because of its exceeding amount of delivered subsidies, but because its narrative was around the need to improve the quality of homes for low-income Peruvian families. Thus, it intends to tackle the challenging qualitative housing deficit, focusing on vulnerable families that struggle to access other housing opportunities. The CSP component seemed even more promising once we learned that it fully subsidizes the construction of 35m² houses on family-owned lots, avoiding the need to relocate families, as many social housing programs do. Additionally, among AVN, CSP, and MV, the first one has been the most widely studied, while the second one has not been analyzed deeply enough, despite it being the component that has historically received the highest amount of funds.

Driven by curiosity to learn more about the program of Techo Propio, and particularly, about CSP, we joined Facebook groups related to these as our initial step towards exploring this program, otherwise barely researched in academia or government reports, as far as our research has found. We were immediately surprised about the amount of groups and of members each of these groups had. Every group we joined had high volumes of activity from members posting different types of information and comments. From the diversity of posts, we were shocked that the majority of the
comments expressed confusion, anger and frustration from individuals. Others were demanding information and guidance from Techo Propio. What was causing so many families to be confused about the application process and about their own initiated processes? Apparently, the CSP process generated both great interest and confusion among families, as well as for ourselves. Clearly, there was a mismatch between the simplicity of the process as publicized by Techo Propio through its own platforms and the process being experienced by families. It became evident that reading these both extreme sides was not enough for us to understand how families actually became beneficiaries of the CSP subsidy.

Motivated by the promising objectives of the CSP model, the limited information and studies available, and the intriguing scenario we identified early on, we decided to focus our attention on this component. We were particularly keen to understand how CSP is currently being implemented, and especially, how its subsidies are allocated to families, together with the city-wide implications. Through a combination of spatial analysis and in-depth interviews with diverse actors in the Techo Propio ecosystem, this thesis elucidates the allocation process of housing subsidies as it is implemented in reality, going beyond the ‘official’ narrative. Our findings identify which families actually become beneficiaries and the spatial consequences of this model at the neighborhood, city, and national scales. We hope our findings and conclusions can help reflect on potential improvements for this and similar programs, and, ultimately, contribute to discussions on the roles the public and private sectors should have in the provision of affordable housing across Latin America.

**Research questions**

**Main question**

How are housing subsidies being allocated in reality through the Techo Propio CSP model?

**Sub-questions:**

- How is the CSP housing component reaching the targeted low-income population in Peru?
- What roles do the private and public sectors have in the implementation of the CSP component in Peru?
- How are CSP housing interventions being distributed across urban scales?

**Methodology**

This thesis was produced in the context of the COVID-19 world pandemic, during which Peru has been heavily affected. As the authors were in different countries (Peru and the USA) for most of the time, work was done remotely over zoom calls.

Given the inability to do direct fieldwork in Peru, the difficulties of accessing information in general, and the wide scope of analysis of the Techo Propio program at the national scale, the process of
contacting stakeholders was a challenge. Therefore, the starting point for the research was the acquisition and analysis of data shared by FMV, later supplemented by interviews and analysis of social media forums, which we refer to as netnography. In-person interviews and site visits to CSP homes and their surrounding urban context would have enriched the research process, but were not possible. However, netnography provided the opportunity to better understand how a large number of Peruvian families perceive this housing program. Additionally, these social media groups exposed the interaction between families and different stakeholders, which offered the opportunity to identify and directly contact actors whose roles would have otherwise been invisible.

The first phase of the research for this thesis consisted in analyzing the data provided by FMV. This database contains data points for interventions for all three components of Techo Propio (CSP, AVN, and MV) from 2003 to 2020. Although the data shared was not geolocated, starting in the year 2010, the data points had addresses that we were able to geolocate. This portion of the data (2010–2020) had over 300,000 data points. In order to map this large data set, we dedicated the first two months of our research to cleaning the data by using R and Excel and setting up the digital environment for mapping. We used ArcGIS and QGIS to geo-locate the data points for each component and develop spatial analysis, mostly centered on the CSP component. In order to analyze the density of CSP interventions in a comparable way across scales, we spatially standardized by aggregating points according to a hexagon city grid.

As aforementioned, due to the pandemic and the limitations to develop ethnographic research, we leveraged the power of social media and carried out netnography research instead. This process consisted mainly of joining twenty-two Facebook groups related to Techo Propio, in general, and CSP in particular. Together, these groups have thousands of members, who are mostly families and, secondly, representatives from construction companies. Although there are some families who are already in the process of obtaining their subsidy and families who have already received their CSP house, most activity on these groups is led by families who are interested in the program but have not applied yet. This gave us the opportunity to identify the prevalent doubts and questions from families, how different stakeholders interact, and overall experience the nuances of the program from the family's perspective first.

Through the social media groups and direct research, we were able to reach five (5) construction companies with whom we conducted online in-depth interviews via Zoom. From the construction companies, we interviewed a set of workers operating in diverse roles, from executives to engineers and recruiters. We also conducted four (4) interviews with officials from Fondo Mi Vivienda who work in different departments and positions within Techo Propio. We also interviewed three (3) municipal workers from districts that have a high volume of CSP interventions. Finally, we reached one (1) family with whom we better understood the challenges and complexities of applying and navigating the CSP system.
Lastly, the spatial analysis, netnography, and interviews was underpinned by reviewing official documentation and information publicly available, such as advertising materials from construction companies, training materials by FMV, and public interviews on local media to some key stakeholders.

**Definition of keywords:**
- **Allocation:** the process of selecting which families will become beneficiaries of a government subsidy.
- **Official:** formal and known practices
- **Unofficial:** processes that are organically carried out by different stakeholders but not considered in the organizations' formal narrative

**List of abbreviations:**
- **BFH:** Housing subsidies
- **FMV:** Peruvian public company responsible for housing
- **CSP:** Construction on owned-site, Techo Propio
- **AVN:** Acquisition of a new house, Techo Propio
- **MV:** Structural house improvement, Techo Propio
- **SUNAT:** Peruvian taxpayer’s collection agency
- **SUNARP:** Peruvian national property registry
- **COFOPRI:** Peruvian land formalization agency
- **INEI:** Peruvian statistics agency
Chapter 1

Affordable housing in Peru: from right to good

1.1 Housing Policies in Peru in the 20th century

The history of housing policies in Peru in the last century is mainly driven by the story of Lima and its response to unprecedented population growth. The rest of the country has not been taken into consideration with the same rigor and has only been subject to specific policies regarding housing for the rural poor.

Starting in the 1940s, Lima had a population of 660,000 people and wasn’t prepared to experience the accelerated growth process that was imminent (Kahatt, 2017). Due to intense migration from Andean and Coastal communities to the capital, by 1972 Lima had already 3,420,000 inhabitants, which represented a 500% growth and surpassed the 1,600,000 people that Lima’s National Planning and Urbanism Office had initially predicted (García and Miyashiro, 2015).

The government’s first response was the creation of “Unidades Vecinales” (neighborhood units) under the 1945 Housing Plan, requested by Lima’s mayor Fernando Belaunde Terry, an architect and urban planner (Kahatt, 2017, p. 105). Although these units were expected to accommodate the growing population in affordable housing projects, they were greatly insufficient. People took action to solve their needs through their own means and began a process of occupying land and building their own neighborhoods. These “invasiones” (invasions), as referred to in Peru, became the main model of urban development, which grew into self-organized squatter settlements in the outskirts of the city.

Peruvian architects and social scientists inside the “Corporación Nacional de Vivienda” - CNV (National Housing Corporation) started to explore new strategies to suggest alternative and faster answers to the housing deficit. Inspired by self-construction methods, they developed the idea of “lotes y servicios”, which would later be known as “sites and services” in the international development jargon. The idea behind this concept was that the government should provide a minimum of basic services –water, electricity, and an urban design outline– upon which people would progressively develop and expand their homes (Kahatt, 2017, p. 107). This idea gained traction given that there was an implicit invitation to citizen participation, as Claire Bishop states: “the user shares the authorship, which is interpreted as a democratic gesture and an egalitarian community” (Bishop, 2006, p. 12).

In 1956 the first sites-and-services project, called “Ciudad de Dios”, was created in Lima by the CNV. John F.C. Turner arrived in 1957 to work with informal settlements in Lima and with the
post-earthquake reconstruction project in Arequipa. He became deeply inspired by this reality (Kahatt, 2017, p. 109) and internationalized these ideas because for him they represented “the freedom to shape one’s own environment” (Turner, 1968).

In 1961 the Peruvian government decided to legalize squatter settlements through the “ley de barriadas” (squatter settlements law) and developed a policy for the integration of these areas into the rest of the city. This legal framework empowered architects and urbanists, as well as squatters, to develop strategies to innovatively overcome the housing shortage. Nevertheless, between 1960 and 1980 large-scale housing projects and sites and services projects were still being built as the government continued to see itself as an active player in the provision of affordable housing. This was just about to change completely.

Starting in 1993, under president Fujimori’s regime, housing policies suffered an important turn among other industries like education, health care, and transportation. First, the new constitution crafted by Fujimori’s party removed housing as a basic human right. This action was quickly followed by the liberalization of housing projects (Fernández-Maldonado, 2019). As a product of this liberal turn, years later, the Fondo Mi Vivienda was created to guide the new housing approach (Calderón, 2009).

1.2 The new paradigm: housing as a good

Although little has been written about the formulation of the latest Peruvian housing model, the fact that it was created following the example of Chile’s housing model, allows us to infer the original intentions and assumptions it was based on.

The years preceding the liberal turn in housing policies were dominated by the idea that the government was a bad implementer of housing projects. The arguments mainly framed the government as not being able to execute fast enough to scale its impact and as not having the financial resources to develop the large number of houses needed. During this period, the state was characterized as "small in scale, largely unaffordable by the poor, poorly targeted, and largely inefficient" (Mayo, 1999, p. 41). As a result, it seemed necessary to explore other solutions coming from the international and national discourse (Gilbert 2004, p. 14).

In parallel, defendants of the free market argued that relief of the housing crisis would only come from deregulating the urban land market which would increase the supply of land and, therefore, real estate prices would fall. As Bruy (2012, p. 524) recalls, “the ‘natural’ functioning of the free market would produce housing options commensurate with demand if only the state would cease ‘distorting’ it.” In the case of Chile, Bruy highlights that this belief was aligned with the growing idea that poor people were lazy and undeserving of support from the state. “This perception served the neoliberal precept that the state should withdraw from social programs: if poverty was the poor’s
fault, the state's refusal to further enable 'bad' behavior was not only justifiable, it was beneficial" (Bruey 2012, p. 535).

In this context, market-based solutions for public issues became the norm while the government's role was reduced to regulating, providing incentives, and only subsidizing the poorest of the poor who wouldn't be able to access housing through the market (Adams, 1998; Graham, 1992). To do so, it attempted to eliminate the entrenched beliefs that housing was a right, and that the state was a legitimate target of demand.

Under this new paradigm, families should be able to access housing based on their own income, savings, and access to credit. The responsibility of providing housing was no longer of the state but of the private sector and each family (Bruey 2012, p. 536). "In an environment of neo-liberal economic orthodoxy, a major attraction of the capital subsidy was that it offered a way of helping poor families obtain a house, without letting public expenditure get out of hand" (Gilbert 2004, p. 33).

According to Gilbert (2004), under the new neoliberal housing model adopted by Peru in the early 21st century, the housing supply was provided by the private sector. Instead of the government, market competition would determine the type and quantity of housing to be produced. The idea was that a market approach would reduce costs of housing production and provide more choices for families in need. On the other side, the demand would be subsidized so families could access housing through the market. The core statement was that families who were in poverty but were able to demonstrate a minimum capacity to generate savings should get the subsidy as a reward for their capacity to maintain themselves. The transparency of such an allocation system would allegedly reduce corruption.

![Figure 01: CSP subsidy allocation model](image)

Source: produced by authors with information from research
But, how were such deserving poor to be defined? Each country that has implemented this approach has defined it and measured it differently, but there have been certain commonalities. Countries have favored families rather than one-person households, those who wish to become homeowners or already have land, and nationals rather than foreigners (McDonald, 1998). In the case of Chile, families with proven ability to save were given priority as well. Colombia implemented something similar, asking families to obtain access to credit as well, but later on, also gave priority to women-led households. A different example has been South Africa, which intended to allocate housing based on demand databases collected through local governments.

Governments have demonstrated a low capacity to review the family’s declared income and make sure their earnings fall under the desired threshold. Given the economy's informality, some countries require families to just sign an affidavit stating their income, which is hard to check. This means that governments could not be targeting the intended poor families the program is supposed to subsidize (Gilbert 2004, p. 34).

Over the years, neoliberal housing programs in Latin America have also been in the spotlight because of the impact the location of housing projects have on city-making. Many private developers construct new homes far away from the city, creating other problems for the citizens that have to live there. Access to public transportation, jobs, markets, and care options prove to be difficult in these new satellite urban areas. Developers choose this land largely because it allows them to build at scale, lower their costs and maximize their profits (Libertun de Duren, 2017). But programs have also not provided homes in an even way across regions and some alleged they have deepened social segregation (Gilbert 2004, p. 29).

1.3 Housing Deficit in Peru

A housing deficit can be measured either quantitatively or qualitatively. Quantitative housing deficit refers to cohabitation, meaning households that share the dwelling with other households, and improvised dwellings, meaning a shack or housing unit beyond repair. On the other hand, qualitative housing deficit refers to either poor materials, such as mud, cardboard, plastic trash, overcrowding in cases where three or more people share a room, lack of public services –water, sanitation, and electricity–, and lack of property deeds, meaning households that have no legal document to prove ownership (Libertun de Duren and Osorio, 2020).

Peru’s housing deficit represents the highest percentage for a middle-income country and the third-highest for any kind of country in LAC (Libertun de Duren and Osorio, 2020). Similar to many countries in Latin America, Peru experiences a higher qualitative deficit 46%, compared to 14% of quantitative deficit. The Peruvian qualitative housing deficit is mostly due to houses built with waste materials (34%) and houses without access to infrastructure (29%) (IDB, 2018).
Despite the high levels of housing deficit, Peru dedicates, on average, only 0.2% of its GDP (2010-2014) to housing. This percentage is among the smallest shares of GDP directed to housing in LAC (Libertun de Duren and Osorio 2020). It is less surprising then, that options to access housing in Peru are limited.

A main factor that affects accessibility to housing is access to land, which has become one of the major challenges, seen throughout Latin America where informal access to land continues to increase. According to the IDB (Housing, What’s Next?, 2018), Bolivia presents the highest percentage of the population living in informal settlements (44%) among South American countries, followed by Ecuador with 36% and Peru with 34%. In Peru, families access land informally and, eventually, go through a process of formalization, which can take decades until finalized. Originally, the land was procured through collective mobilization of families in need, most of whom were first or second-generation migrants from rural areas. Currently, land mafias or land traffickers lead these processes in most cases by selling land to families under the promise that services and formalization will soon reach the area (Espinoza & Fort, 2020). A key actor in the formalization process is COFOPRI (Organismo de Formalización de la Propiedad Informal). Under the current regulation, the process starts once families acquire a “constancia de posesión” (proof of possession) through their local municipality, which states that they have been living on that site for over 7 years. Usually, once many families have this document, municipalities extend the infrastructure to serve these areas. However, this urbanization process does not guarantee that COFOPRI will formalize the property titles of families who have a “constancia de posesión”.

Leaving aside access to land, access to housing itself is also a great challenge. While the rental market for low-income families is limited to mainly bedrooms or independent apartments in self-constructed buildings, the housing solutions provided by real-estate companies are not affordable. The only affordable options in the private market are those promoted by FMV through the AVN program (Adquisición de Vivienda Nueva), which requires families to access a formal loan that low-income families cannot obtain. According to the World Bank (2017), less than 45% of all households can cover the cost of a basic home built within the informal market (Libertun de Duren and Osorio, 2020).

A study produced by the IDB and edited by Bouillon (Un espacio para el desarrollo, 2012) analyzes the affordability of cities in Latin America. The following graphic shows the effect the price of housing has on affordability across different cities. Lima is among the top 10 cities in which the price of housing affects affordability the most, either because salaries are too low or because the price of housing is too high.
Consequently, as land is more easily accessible than direct housing solutions, self-construction on land informally acquired becomes the main mode of housing production for the low-income Peruvian population (Jaramillo 2012b). As professional services, such as architecture and engineering are inaccessible, families usually hire a master builder to do their layout and lead the construction process. Self-construction is a long-term project that advances as money becomes available. According to CAPECO (2020), the Peruvian Chamber of Construction, 7 out of 10 houses are built informally through self-construction. According to their report, 49.6% of construction material sold per year is used in self-construction projects, which proves the magnitude of this way of housing production.

Calderón (2015) assessed the Techo Propio program and states that it has been able to reduce the quantitative deficit by 25% but only a reduction of less than 5% of the qualitative deficit. In this context of relatively restricted alternatives to improve the quality of living, the CSP component offers low-income families a very interesting opportunity. As it is currently the only housing
program attending the low-income population, it is important to better understand two main questions: how is CSP being operationalized? And, who is it actually benefiting?

1.4 Neoliberal Planning

The analysis of the relationship between neoliberalism and urban environments has gained traction in the last decades and become known as a subtheme in planning theory known as “neoliberal planning” (Baeten, 2017; Sager, 2011). This approach seeks to understand the impact that neoliberalism has on urban policies and state interventions throughout the world. In this context, Harvey defines “neoliberalism” as:

(... a theory of political economic practices that proposes that human well-being can best be advanced by liberating individual entrepreneurial freedoms and skills within an institutional framework characterized by strong private property rights, free markets, and free trade. The role of the state is to create and preserve an institutional framework appropriate to such practices (Harvey, 2007, p. 2).

Many scholars have criticized the social sciences because of the abstract way in which they use neoliberalism as a concept to explain issues in postmodern societies without providing enough empirical and detailed analysis (Pinson et al., 2017). In response to this critique, urban geographers and planners are seeking to bring empirical data and more detailed analysis to the study of “neoliberal planning”, particularly how the unlimited power of a market-driven approach in urban development has been restructuring the way the state operates (Peet and Watts, 2004).

Scholars have also looked closely at the role of the state at different levels within the neoliberal context. Peck et al. argue that the state should not be seen as a victim of neoliberalism, but as an active stakeholder deliberately deciding to serve neoliberalism as a product of its own reorganization (Peck et al., 2009). Similarly, Eraydin (2012) states that this ‘retreat’ of the state does not represent a loss of power but rather gains a proactive role in incorporating market principles in planning through regulatory reforms at the local, national and international scales (As cited by Baeten, 2018, p.105). Interestingly, territorial policies have moved from a redistributive perspective to a competitive approach. Nowadays, cities under a neoliberal state need to compete with each other for resources, not only from investment companies but also from a national state that rewards and punishes certain city behaviors (Brenner and Theodore, 2002).

A great example of how neoliberal policies were tested and implemented early on is actually in Latin America. As Baeten (2018) recalls, the ‘birth’ of neoliberal planning happened in Chile and Britain during the late 1970s and early 1980s, and particularly Chile became a living laboratory for international liberal scholars under Pinochet’s military regime. They rewired the role of the state as a subsidizer of affordable housing, while companies were invited to entirely develop the housing
projects (Kusnetzoff, 2016). The National Urban Development Policy (1979) in Chile only regarded land scarcity as a consequence of planning restrictions and stated that the city should grow “horizontally” and “naturally”. Indeed, the result was an extreme horizontal expansion of major cities, especially Santiago, as low-income families were relegated to live in the outskirts of the city, isolated from opportunities (Rolnik, 2019).

Brenner and Theodore (2005, p. 102) suggest that neoliberal practices are always “articulated through contextually specific strategies” and therefore should be studied at the local level to reveal their spatio-temporal particularities (As cited by Baeten, 2018, p.106). This thesis analyzes how a national-scale housing model is operationalized in Peru. Understanding how subsidies are allocated in practice uncovers how a neoliberal planning approach impacts the lives of low-income families and their communities. Our case study of CSP interventions in Peru aims to show the limitations of the imperative neoliberal model. Similar to the Chilean case, where there was un “unbridled belief in the natural superiority of the market to allocate land in the most efficient way”, as Baeten (2018) explains, in the Peruvian case, the government outsources its planning efforts and assumes that the market can efficiently and equitably allocate housing subsidies through competition. We hope to contribute with evidence to inform the needed debate about the roles the public and private sector should have in the provision of housing for vulnerable populations.
Chapter 2

Techo Propio Ecosystem

2.1 Techo Propio Components

The first part of the following section addresses the three components that comprise Techo Propio (AVN, MV, and CSP), focusing mainly on the CSP component. Secondly, it introduces the main actors involved in the allocation process of the CSP subsidies.

2.2.1 Adquisición de Vivienda Nueva (AVN) | Acquisition of New House

Of the three components within Techo Propio, AVN is by far the most real estate–driven component. Real estate companies develop housing project proposals, either single or multi-family homes, that are evaluated by FMV. If approved, they become part of the program so beneficiary families can choose among them. These homes cost up to S/107,000 ($30,500) per unit and the maximum amount each family can receive as a subsidy is S/38,500 ($11,000), which represents roughly a third of the total housing value. The subsidy is paid directly to the real-estate company and the family is not required to repay the subsidy to the government. Up to date, AVN has delivered 69,983 subsidies and has received an investment of $448 million.

This program targets families who:
- Don’t have any property at the national level
- Monthly family income is lower than S/ 3,500 ($1,000)
- Families can demonstrate a specific amount of savings (subject to change)
- Families are eligible for a bank loan to complete the remaining cost of the house
- Families have not received housing subsidies before

As real estate companies need to acquire land to build housing projects, land value is critical. In order for these projects to be profitable for real estate companies, in 2012, the price of land had to be less than $50/m² (Calderón 2015, p. 38). Additionally, the cost of land represents a significant percentage of the total cost of the housing development, increasing from 6% to 19% in 2012. The high land value and fragmentation of land explain why there are fewer AVN projects in Lima than in other cities, despite the high demand for housing. According to Calderón, 85% of AVN projects have been built in provinces outside of Lima.

Developers usually identify rural areas and initiate a legal process, called “habilitacion urbana” (urban habilitation), to convert such areas into urban land for later development. The AVN program, for example, which requires larger areas of land to build their multi-family housing, usually leverages the urban habilitation process for land acquisition. As representatives from municipalities confirmed during interviews, this process is much more profitable for construction companies as rural land tends to be less expensive than urban land. The process to convert land from rural to urban is usually a simple process with easy-to-meet requirements imposed by the local municipalities. For example, some municipalities only require these areas to be accessible by a car route without them even having to match the current expansion areas predetermined by the municipality. Additionally, municipalities also perceive economic benefit from these new developments as they gain greater tax revenue. In the case of CSP, municipalities solely require these interventions to be done within “urban areas”, which, as aforementioned, is an easy-to-meet requirement. Through our interviews, we identified the absence of an active role by the state which leads to private urbanization processes, such as those related to Techo Propio, defining the growth patterns of cities with its resulting consequences. As stated by Espinoza and Fort (2017) for the case of a specific district in Lima, local municipalities don’t seem to have the mechanisms to identify and prioritize high impact public investments and projects. On the contrary, they seem to be solely responding to fragmented local demands and initiatives by local private players.

The following map shows the distribution of AVN developments built between 2010 and 2020 across Peru. Each green circle represents an individual AVN project, the larger the diameter of the circle, the higher the number of house units that specific AVN project built.
2.2.2 Mejoramiento de Vivienda (MV) | Structural House improvement

Although Peru has a high qualitative housing deficit (46% of the total housing deficit), meaning it is in great need of housing programs that improve the quality of existing housing, MV is the program that has the fewest number of subsidies delivered up to date with a total of 10,199.

This program delivers subsidies aimed at house modifications, rehabilitation, construction completion, and expansion of an existing house. Although this program is designed to reach the whole country, it focuses on urban areas where families have property tenure, where lots have
electricity, water, and sanitation, where there is demand from eligible families, and where there is a financial institution that can be the intermediary by providing guarantees and additional credits, if necessary (Website: Fondo Mi Vivienda, Mejoramiento de vivienda).

The following map shows the distribution of MV interventions across the country.

2.2.3 Construcción en Sitio Propio (CSP) | Construction on Family-Owned Site

With over 335,000 subsidies delivered since 2003, this is the program within Techo Propio that has served the highest number of beneficiary families and received the highest investment from the
public sector. However, it is also the program that has received the least attention. It is surprising that neither the government nor academia have developed impact studies or analysis of the implementation process, as far as we have been able to find.

CSP delivers subsidies (called the “Bono Familiar Habitacional”) intended to cover the full costs of building a house for low-income families who are in the D income-level bracket. These subsidies are for the amount of S/26,400 (approximately $7,000). The program is directed to families who own an empty lot (without brick and mortar construction), or have independent air rights over an existing house owned by someone else (for example: first floor belongs to parents, but one of the sons has independent air rights to build on the second floor). In either case, these properties must be registered in the national public registry.

In order to obtain the subsidy, interested families are expected to select a local construction company, although, depending on the city and area families live in, the number of choices is usually limited. Most of the open calls for submission are done at a national scale and the number of open calls per year vary from one to six times. It is important to note that there are special calls for submissions targeted to areas that have been affected by natural disasters, such as families impacted by El Niño or by the 2007 earthquake in the region of Ica.

In order for families to be able to apply to CSP, they must meet the following criteria:
- Families must own a lot of land or independent air rights over an existing first-floor house
- Families can only own 1 property at the national level
- The family's monthly income cannot exceed S/ 2,600 ($740)
- Applicant must have direct family dependents (children or elderly)

CSP houses are typically 35m², have two bedrooms, 1 bathroom, 1 multipurpose room, and outside laundry space. Although the design can vary depending on the characteristics of the lot or the construction company's own criteria, modules tend to match the standard design shown below. It's important to note that the construction companies are required to provide a structure that can eventually support at least a second floor.
Figure 06: CSP home exterior
Source: Construction company Grupo Techo

Figure 07: Advertising image used by a construction company
Source: Construction company Pedro M. Otoya Celis
Figure 08: Standard CSP layout design
Source: Construction company Grupo Techo

Figure 09: Inside a CSP house just completed.
Source: Construction company
The distribution of CSP subsidies show great variability, both throughout the years and across the different regions in Peru. As the following figure shows, the number of CSP subsidies allocated has been increasing since its creation in 2003, peaking in 2007, 2015, and, most recently, in 2019 and 2020.

**Figure 10:** CSP Subsidies per year (2003-2020)

Source: produced by authors based on data from Fondo Mi Vivienda

**Figure 11:** Departments ordered by their rate of CSP interventions relative to their population size

Source: produced by authors with data from Fondo Mi Vivienda (2003-2020)
The table above shows which departments have received the highest amount of CSP subsidies, normalized by their population. Although Lima has received a high number of CSP subsidies, it is low in relation to its total population.

As the following figure and map show, the majority of CSP interventions appear along the coast of Peru, while the urban areas in the Andean and Amazon regions present fewer CSP interventions. Evidently, the number of CSP varies greatly depending on location.

Figure 12: CSP interventions per population per region
Source: produced by authors with data from Techo Propio (2003-2020)
It is interesting to see that, in all three components (AVN, MV, and CSP) the distribution of the subsidies tends to concentrate on the coastal region. However, from comparing the distribution patterns of all three components, the CSP shows a greater spread of interventions across the territory than AVN and MV, which both show higher concentrations in the coastal region, coincidental with areas with highest population. Following on, this thesis will concentrate on the CSP component, but further research should also be done to understand the impact of AVN and MV.
2.2 Key stakeholders in CSP

Through our research, we identified four main stakeholders that are key throughout the allocation of CSP subsidies: Fondo Mi Vivienda, local municipalities, construction companies, and families. Although we are aware of the complexities and diversity within each defined stakeholder, we believe the following introduction is a simplified but necessary explanation to understand each actor before comprehending their roles in the allocation model.

2.2.1 Fondo Mi Vivienda (FMV) & housing policy

FMV is a public company –dependent on the Ministry of Housing– that contains the Techo Propio program and its three components. As mentioned at the beginning of this chapter, FMV manages the financing of all affordable housing programs in Peru, both directed to middle and low-income families. FMV currently has approximately 150 full-time employees who are not divided by program but rather transversally by specific roles, such as commercial area, legal area, project area, etc. This means that there is not a specific team responsible for handling the Techo Propio program in itself, let alone for each of the components. Consequently, given that all employees oversee all programs, there is no clear prioritization of certain programs over others.

The Ministry of Housing regulates and sets the parameters for housing requisites at a national scale. In relation to Techo Propio, the Housing Ministry determines the number of subsidies to be allocated in each call for submissions and defines the requisites. FMV manages the subsidies but has no direct participation nor responsibility for designing the policies they execute.

According to official documents from FMV, this entity is in charge of:
- The promotion and financing of the acquisition, improvement and construction of housing, specially of social housing.
- The realization of activities related to the promotion of capital flow towards the financing of housing.
- The participation in the primary and secondary market of mortgage credits.

2.2.2 Construction companies & profit making

Construction companies are the actors responsible for delivering the CSP houses to families. Currently, there are 1075 construction companies registered in relation to CSP in Peru. The number of registered companies has increased significantly since the early days of the program. However, not all construction companies are constantly active or continue to work with Techo Propio. As requirements set by Techo Propio to form and register a company are easily achievable, it represents an important opportunity for construction companies to get started and work with subsidized construction. The requirements for companies to register into Techo Propio are: financial backing from an accredited financial institution, having an architect or engineer with minimum five
years of experience, and not having any previous problem with bidding from the state. These requirements are proven to be easily achievable by the fact that every month between 20 and 30 new companies register in the FMV system. In the last open call for submission in 2021, there were only 607 active construction companies out of a total of 1075. This is partially explained by the fact that small construction companies have less financial backup and stability, which defines their intermittent or ephemeral nature.

When looking at the distribution of these construction companies, we see that, similarly to the unbalanced spatial distribution of CSP interventions, construction companies are also situated mostly along Coastal regions.

Figure 14: Distribution of construction companies registered with CSP across regions in Peru
Source: produced by authors with data from Techo Propio, 2021, provided through an interview

Construction companies are assigned a fixed amount of the CSP subsidy to cover for their management role and the rest of their profits depends on their ability to manage the overall costs of construction and keep them as low as possible. Interviewees have confirmed that, from the total amount of the subsidy, which is S/26,400 (approximately $7,000), construction companies receive S/ 1,950 ($503) per home built for their management role. The rest of their profit may vary according to the conditions of each project.

Building houses for middle-income sectors is much more profitable for construction companies than building CSP houses. Representatives from construction companies explained that the profit from building one (1) middle-income house, through a traditional loan from the MiVivienda program,
equals that of building eight (8) CSP homes. This explains why construction companies overall prefer to build for middle-income families.

Depending on where the recruiting, registration, or construction phases will happen, construction companies have three main levels of employment: permanent employees based in key cities where construction companies have their offices, mobile workers who travel depending on the opportunity, and locally hired labor or operators.

2.2.3 Municipalities & urban governance

In Peru, there are three levels of territorial governance: regional governments, provincial municipalities and district municipalities. It is within the competencies of this last one to design zonification parameters and manage urbanization processes. But the capabilities to undertake these processes vary deeply among diverse district municipalities. From the richest urban districts in Lima to rural districts in the Amazon, there is a wide difference in the availability of resources and technical talent. Their municipal budget comes from local tax collection and transfers from the regional government, which for a vast number of local governments represents the single largest source.

Interestingly, cities do not necessarily belong to one district alone. Large cities like Lima, for example, are governed by fifty (50) different district-level municipalities –considering both the province of Lima and Callao–, while smaller cities are governed by one (1) or up to five (5) district-level municipalities. As a result, urban governance is fragmented, especially in the larger urban areas (Fernandez-Maldonado, 2015).

Municipalities are supposed to govern their diverse territories equally and there are no “urban municipalities” or “rural municipalities”. Municipalities are responsible for carrying out the process to convert rural land into urban land. Each municipality has its own rules and norms, but as we were able to understand from interviews, the main requirement is that the rural area to be converted must have road access, even if the area is not adjacent to the current urban footprint.

Although municipalities have no direct role in the provision of housing, they are supposed to have urban plans to guide their urbanization processes. In reality, only around 20% of municipalities develop them (Fernandez-Maldonado, 2015). On the other hand, the governance of the urban services is outside of the municipality's competencies. This means that the provision of electricity, water, and sanitation are the responsibility of public companies that operate under government licenses.

In the CSP model, municipalities are a key actor during the supervision of housing construction projects, as they grant construction licenses. Construction standards are set at the national level by
the Housing Ministry and FMV solely requires construction companies associated with Techo Propio to comply with the minimum requirements.

Until 2019, municipalities were the main entities that registered families into the Techo Propio system for a CSP subsidy. Interestingly, municipalities have to register themselves in the Techo Propio to be approved as entities that can register families for the subsidies, it is not automatic. Through interviews with representatives from Techo Propio, we learned that nowadays more than 70% of the families registered into the system are done through construction companies, meaning that municipalities are less active during this stage of the process.

**2.2.4 The universe of families applying**

Based on information from the 2007 Census, the INEI (Instituto Nacional de Estadistica e Informatica) provides an overview of the demographic profile of Peruvian families who live in deficient housing conditions, either of qualitative or quantitative nature. According to their report, 68.3% of families in housing deficit have a household head who has solely completed school studies (25.3% primary school and 43% up to high school). Additionally, 11.2% have college studies while 14.9% have some degree of non-college higher education. Over 97% of household heads report being employed, whether formally or informally. The housing deficit in Peru is 1.1 million houses, from which 260,000 fall within the quantitative deficit category and 860,000 qualify as qualitative (INEI, ENAHO, 2016).

As aforementioned, the Techo Propio program is designed to target the socio-economic sector D –being A the highest income and E the least–, which represents 27% of the total population of Peru, the same as sector C. The average monthly income for sector D is S/2,480 ($600) and their monthly spending represents 80% of their salary. For both sectors C and D, the average level of education completed is high school, and are mostly independent workers. Though the population in the income level D is low-income, sector E is the lowest income bracket with average income of S/ 1300 ($318) (INEI, 2017). Specifically, the CSP program targets families that, as a whole family, earn less than S/ 2600 ($636).

FMV hires marketing agencies to produce “demand studies” for AVN and MV, but not for CSP. These demand studies are done through a traditional market research method, highly based on surveys. These demand studies do not collect information about the aspirations of each family, nor a detailed understanding of their spatial and context-based needs.

Now that we have better understood the different components under the Techo Propio program and the key actors involved, we will share our findings about the allocation model.
Chapter 3

Filling the gaps: official and unofficial steps in the allocation of CSP

3.1 The CSP Allocation Model

The following chapter exposes the current allocation process as it has been revealed to us through the interviews with governmental officials, construction companies, municipalities, and families, and also through looking at diverse documentation from the governmental and the construction companies sides. By doing so, we intend to explain why some eligible families have greater probabilities of becoming beneficiaries than others.

By elucidating the process we wish to bring clarity on who gains from the allocation model, who loses, and what are the underlying interests for each stakeholder. Overall, this chapter helps to answer our main research question: How are housing subsidies being allocated in reality through the Techo Propio CSP model?

![CSP allocation funnel](image)

Eligibility requirements:
- Income less than S/2,700 ($730) per month
- Have direct family dependents
- Have never received housing subsidies
- Own only 1 urban lot at the national level with property title

In order to analyze the real allocation process, we structured the main events and roles of actors throughout the allocation of CSP subsidies into four stages: Preparation, Registration, Selection, and Construction. Although the official narrative around the allocation process revolves around three main steps, the registration of interested families and determining their eligibility, the
“convocatoria” (call for submissions) given by FMV, and finally, the construction of the houses by construction companies. Nevertheless, our interviews and research reveal a set of unofficial steps throughout the entire process that are key towards eventually defining which families will receive the subsidy and which will not. The term unofficial does not refer to illegal practices by any means, nor necessarily an intention from Techo Propio or construction companies to hide them from the public. Rather, unofficial refers to processes that are organically carried out by different stakeholders and that are not considered in the information shared by Techo Propio, despite having fundamental consequences in the allocation of subsidies. These unofficial steps are highlighted in yellow throughout the timeline graphics of this section.

The following section describes the allocation process in each of the four main stages by detailing the unofficial and official steps we identify in each one and who is the main actor carrying the action on that step. Throughout each phase, we highlight the unofficial steps in yellow and the official steps in grey.

### 3.1.1 Preparation

Through our research and interviews, we identified this phase as an entire unofficial stage which takes place during the beginning of the allocation process. It is surprising that it is entirely ‘off the record’ as it is crucial in the implementation of the CSP program and its consequences. Essentially, the preparation process refers to the initial period during which potential families are recruited or “captadas” (captured), as construction companies refer to it. During this process, both families and construction companies prepare for the following stages along the process.

The fact that Techo Propio does not provide any guidance for how the targeted families should be identified, leaves construction companies alone to decipher how to find them. Each company uses different strategies, but we've found commonalities which we will describe in the following unofficial steps. Although we consider that the construction companies with which we spoke are quite representative of the ways of operating, this section does not assume that all stakeholders act in the same manner, given that we were able to speak with a small portion of a vast universe of companies.
1. **Construction Company | UNOFFICIAL**  
*Regional, City, Neighborhood, family scouting*

In preparation for future open calls for submissions, construction companies are constantly looking for potential families that could fit the program’s requirements. They start by probing the demand at a regional, city, and neighborhood scale. They do so by word of mouth, through contacts, and by touring the land to acquire a sense of areas that offer the best opportunities. Construction companies factor in their level of local contacts and cost of labor and areas that are already served with water and sewage infrastructure.

**Region scouting**  
Construction companies' executives first need to choose which regions they want to focus on. To make this decision, they consider where they have operational capacity, experience, and contacts, and where they perceive there is a large demand that could be easily satisfied. The information about the demand may come through personal connections or potential customers reaching out to them. We did not hear any company state they do rigorous market research to understand demand. Once they've identified a few potential areas, they analyze if opening operations in that new region it's economically worth it.

No information about regional housing deficit or demand is provided to construction companies from the FMV or government side. No statistics were considered to do this
analysis. The selection of which regions should be served depends completely on the sense of opportunity perceived by construction companies.

On average construction companies work in 2 regions, while the maximum number of regions a single construction company works in is 10. One company may legally split into several regions so they have higher chances of winning more subsidies.

Figure 17: Map of Peru showing all CSP interventions from 2010 to 2020
Source: produced by authors with data from Techo Propio

Urban nodes & neighborhood scouting
Within the selected region(s), executives identify cities where families already have property titles or where they are going through the formalization process. They get this information by visiting low-income neighborhoods and by asking local municipalities information about which areas have already been formalized. We also heard that oftentimes construction companies partner with certain municipalities to help pressure COFOPRI to accelerate the formalization process. Therefore, construction companies are not solely assessing the demand in a passive way but even inducing it.
Interviewed FMV officials stated that some areas have remained unserved for years, even though they have raised the subsidy to incentivize companies to go.

![Map of Ica Region showing all CSP interventions from 2010 to 2020](image)

*Figure 18: Map of Ica Region showing all CSP interventions from 2010 to 2020
Source: produced by authors with data from Techo Propio*

**Family scouting**

Once a neighborhood seems to have enough potential families that could fit the Techo Propio criteria, construction companies focus their efforts on recruiting families. Recruiting means actively seeking families through fieldwork, handling the paperwork families provide them, reviewing it, and registering it in the Techo Propio screening system. Construction companies gather the information of as many families as possible as a way of building a pipeline of potential families. Many of these potential families will not meet the criteria set by Techo Propio and, even if they do, construction companies do not have the certainty of how many subsidies will be available in each round of open call for submissions. Therefore, they make sure to have enough potential families to secure as many subsidies as possible when the time comes.
Construction companies display a range of diverse strategies in order to recruit potential beneficiary families in the selected areas. Some construction companies reported having permanent full-time employees dedicated to all the above-mentioned tasks, while others outsource some or even all of the tasks. The outsourcing could be formally done through a contract with other individuals or companies, or informally through “promotoras” or “captadores” (promoters).

Promoters are usually well connected and outspoken local people who are subcontracted to recruit families and gain sympathy with the local community. Promoters tend to move to nearby areas depending on the call for submission and the demand assessed. Interviewed promoters explained they identify poor households that might qualify for the CSP subsidy by simply observing the construction materials and house facades in the pre-selected neighborhoods. Through this screening, they assess the quality of the construction as a proxy for income level. They also approximately determine the dimensions of the lot and take note of any characteristics that may potentially impact construction. Promotoras also advertise CSP in each neighborhood by knocking on doors or visiting places of local congregations, for example markets, to spread the news about the program and be reached by interested families.
Facebook and social media have become an important substitution to these in-person practices during the COVID-19 pandemic. Promoters heavily advertise and recruit families through Facebook groups that are specific to different cities, while interested families post thousands of questions to be answered by other people in the community, mostly families who are also in the same application process. These groups are online platforms that have thousands of members and high levels of activity. One promoter interviewed reported that the construction company would pay her S/100 ($25) per family she recruited –by any channel– and that effectively became an eligible family later.

Through interviews, we identified that some construction companies outsource this family recruiting process through other companies or individuals who are hired as managers. These are responsible for recruiting families but also managing the entire administrative process of gathering the information and preparing the application. We will further address this in the next step.
Recruiting potential families requires great efforts from the construction companies who carry out fieldwork to identify them, gather their documentation and review the potential lots to build on. We learned that only a few interested families contact construction companies directly; the majority of eligible families come from their recruiting practices. Moreover, many construction companies do simultaneous recruiting work in the same area, meaning that there are duplicated efforts. Some construction companies interviewed, shared other companies’ ‘snatching’ strategies, which consist of efforts to convince families to leave their current construction company and register into the program with their own company. These practices would be more common in areas with higher competition. Families lack information and become vulnerable to this type of manipulation.

2. Families | UNOFFICIAL

Gathering necessary documentation

Interested and recruited families need to comply with all the formal requirements from Techo Propio: a valid ID with the updated marital status, a certified copy of the property title, valid IDs for each dependent (children or elderly), proof that the property doesn’t owe any taxes, and completion of an affidavit. Those families who are missing documentation need to acquire it through their local municipal offices, which usually entails facing a process full of uncertainty and extra costs, especially regarding the process of requesting a property title. This program targets families who, in many cases, need to initiate this process because their lots have mostly been acquired through informal urbanization processes. The issue is that formalization procedures depend on the coordination between local municipalities and the national entity COFOPRI, in charge of the formalization of land, and therefore, the process is not entirely in the hands of families. Once the lots have been formalized, it’s the family’s responsibility to register their paperwork in the “Superintendencia Nacional de los Registros Públicos - SUNARP” (the national registry) and pay the administrative fees. Without this last step, the formalization of their lot is not complete and they are not eligible to apply to CSP subsidies.

In the cases in which families formally own large-size lots, they are usually incentivized by construction companies to subdivide their lot and separately register each parcel in SUNARP before applying to the program. These processes also require families to hire architects to develop plans, submit them to the municipality for approval and pay several fees. As far as we could find, Techo Propio does not require a minimum lot size but only a minimum size of construction (35m²). The minimum size of the lot depends on the municipality and construction companies. Construction companies benefit from families subdividing large lots because it increases their probability of building several houses on the same block. Although the subdivision benefits large families as each member (usually daughter or son) may get a new home, these costs are unexpected and oftentimes not affordable. However,
Techo Propio ignores that the processes of subdivideing or independization of air rights, are expensive processes for the low-income families they aim to target.

Once families gather all their documentation and submit it to Techo Propio, the next step in the process can begin.

### 3.1.2 Registration

Registration is the stage of the process in which all the information of families is formally uploaded into the Techo Propio system to be screened and determine which families are eligible to potentially be beneficiaries of the CSP subsidy. It is important to note that the registration of families and their confirmed eligibility does not guarantee the allocation of the subsidy. Families can be registered by municipalities, construction companies, or at FMV’s office in Lima’s center. We learned that, since COVID-19, most registration is done by construction companies. Within Registration, we have identified three main steps, where the first one is official and the following two are official.

1. **Construction Companies | UNOFFICIAL**
   *Family and lot pre-evaluation*

   Construction companies make sure that potential beneficiary families have all the required documentation and that they meet the requirements set by Techo Propio. However, meeting these official criteria is only the first filter of families throughout the allocation process. In parallel, construction companies evaluate each family's lots to determine if they are viable.
options for them to build upon. Construction companies apply a wide range of unofficial criteria to evaluate lots. The following are some of criteria we were able to collect from interviews:

- The spatial location: lots are preferably close to other potential CSP beneficiary lots to maximize operational costs, and are easily accessible by construction trucks.
- The physical characteristics: minimum size is at the discretion of each construction company; the level of the terrain slope should not be such that it requires retaining walls; the type of soil must not be rocky; and the lot should have access to water and sewage preferably. Though empty lots are preferred by construction companies, there are cases in which existing lower-quality houses must be entirely or partially demolished. Families are responsible for this cost, though some construction companies have shared their efforts to provide these services as part of the construction process. Interviewed construction companies have confirmed that construction on second floors is a challenge due to uncertainty about the quality of the existing structure of the first floor. None of the FMV officials interviewed could confirm that any CSP houses had been built on second floors up to date.

This step is key because it is in which the construction company gathers the information to determine which families are valuable “leads” to pursue and how to later prioritize them.

2. Construction Companies | OFFICIAL
Registration of interested families

Families can be registered into the Techo Propio system for the formal screening process by any official entity that has been approved by the program, this includes construction companies and municipalities. Since 2020, construction companies have become the main actors registering families while the role of municipalities has been reduced considerably. It’s important to mention that, as Techo Propio does not have decentralized offices across the country, they used to send trained representatives to certain regional governments to support the process of registration. They have stopped doing so since the COVID-19 pandemic. Therefore, Techo Propio heavily relies on decentralized actors for this registration process.

In the case in which construction companies register families, we learned that they register them into the Techo Propio system for the screening process only once they have fact-checked the families and their lots. The fact that the number of subsidies confirmed to each construction company depends on their capacity to submit as many pre-registered families as fast as possible during the open call, encourages them to continuously register families in preparation for the open call. This is possible to do because calls for submission do not need to be open for construction companies to register families. Although the
registration of families is an official step in the process, the parallel process of accumulating potential families is a strategy that is not transparent and that generates confusion and false expectations among families. Additionally, we learned that there is a power imbalance between small or newer companies and large or older ones given their variable capacity to identify and register families, which consequently, later determines how many house projects each company will secure.

3. **FMV - Techo Propio | OFFICIAL**

*Evaluation and eligibility granted to families*

Once families are registered into the system, Techo Propio is responsible for confirming that families meet the prerequisites, what we call the ‘social requisites’. It’s important to mention that, when evaluating income, Techo Propio analyses the formal income reported to SUNAT, the taxpayers’ collection entity, of the family member who is applying as head of the household. This formal income report might not be enough of a filter in a country where 70% of its economy is informal.

<table>
<thead>
<tr>
<th>Requisite</th>
<th>Evaluation source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income under S/2700</td>
<td>SUNAT</td>
</tr>
<tr>
<td>Only one property title at the national level</td>
<td>SUNARP</td>
</tr>
<tr>
<td>Dependents (direct line)</td>
<td>RENIEC</td>
</tr>
<tr>
<td>Have not received housing assistance before</td>
<td>Housing Ministry</td>
</tr>
</tbody>
</table>

Figure XX: Official requisites by Techo Propio as of 2021  
Source: made by authors based on FMV website and interviews

Once Techo Propio finalizes the evaluation process, they inform the construction company about the approved or denied eligibility of the applicant family. It’s up to the construction companies then to communicate to the families if they have been deemed eligible or not. Families can also review the results of their eligibility by reviewing FMV’s website. From all the families that apply, only 30% are rejected because they do not meet the criteria according to the FMV official responsible for overseeing this process. The most common reason being that they have more than one property registered in their name. It’s important to note that eligibility granted by Techo Propio for the CSP subsidy only lasts one year. This means that, if the family needs to apply again the following year, they need to re-submit the entire documentation set.
How do families then become beneficiaries among all of those deemed eligible? The next stage will explain our findings.

### 3.1.3 Selection

The selection stage comprises the steps in which eligible families become beneficiary families. The process is mostly official although the outcomes are highly dependent on the unofficial prioritization process that the construction companies carry out.

![Figure 22: Allocation process: Selection](image)

Source: produced by authors

1. **FMV - Techo Propio | OFFICIAL**
   **Call for submission**

FMV announces an open call for submission for CSP subsidies with a limited number of subsidies that they can allocate nationwide. The number of calls for submissions every year varies depending on the allocation of funds by the Ministry of Economy.

Subsidies are not attributed to specific regions or cities, but are rather distributed according to a first-come-first-served approach. This means that construction companies intensively compete to upload files as fast as possible in order to secure the highest number of subsidies possible. FMV's online platform keeps track of all the subsidies allocated and creates a waiting list for those who are denied. Therefore, the order in which construction companies submit each family project file during the open call for submissions impacts the family's direct probabilities of getting the subsidy or not.
2. Construction Company | UNOFFICIAL

Project prioritization

In preparation for the open call for submission, construction companies need to prioritize which project files they will submit first. They do so based on the information and documentation already collected from each eligible family in advance.

Based on our research, we’ve identified that companies prioritize project files according to the characteristics of the lots and their location, rather than according to any attributes from the family. In general, this means that construction companies prioritize lots that are easier to build on. Some stated that they prioritize lots with “comfortable” dimensions, lots that do not require demolishing or doing extra work that could delay the construction process, lots that are easier to access by road to load and unload materials, and, specially, lots that already have access to water and sanitation. Many construction companies shared that they tend to avoid building in areas that have heavy rain seasons because that increases the probability of delayed construction periods. However, construction companies do not consider areas with environmental hazards as priority areas. As aforementioned, this depends solely on FMV assigning a certain amount of special subsidies for areas that are recovering from a natural disaster.

Figure 23: Requirements from Techo Propio and from construction companies
Source: produced by authors

3. Construction Companies | OFFICIAL

Submission of eligible families’ project file
In this step, construction companies submit the files for the previously prioritized families. To do so, construction companies need to complete a digital form and submit the following documents regarding the family's house project, some of which also need to be signed by the families. This will be referred to as the “expediente” (the file).

<table>
<thead>
<tr>
<th>Document to be Submitted</th>
<th>Construction company</th>
<th>Families</th>
</tr>
</thead>
<tbody>
<tr>
<td>Descriptive memory of the project, including budget</td>
<td>Signature</td>
<td>Signature</td>
</tr>
<tr>
<td>Architecture plans (distribution, sections and elevations) and location plans</td>
<td>Signature</td>
<td>Optional</td>
</tr>
<tr>
<td>Letter of guarantee</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FUE (form to apply for a construction license) or approved construction license</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contract between family and construction company</td>
<td>Signature</td>
<td>Signature</td>
</tr>
<tr>
<td>Copy of self-appraisal of the site by Municipality (may be replaced by Declaración Jurada)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 24: Documents to be submitted
Source: produced by authors with information from official documentation

As this process is based on a first-come first-serve operation model, construction companies work incessantly to submit as many project files as possible. There is a great difference in submission capacity between small companies and larger companies which tend to have more employees and registered computers to submit files. The call for submission is open until the number of applications matches the number of available subsidies.

4. **FMV - Techo Propio | OFFICIAL**
   **Subsidy confirmation**

   Once all the available subsidies have been allocated and the submission period closes, FMV reviews each CSP file application and approves those that comply with all the official requirements. Only about 4% are rejected during the confirmation process, according to one FMV official interviewed who manages this process. This official also shared that, with each open call, Techo Propio can process about 600 project files per day.
Once construction companies receive the confirmation, they are the ones who must communicate the news to the families. FMV does not communicate to families directly but rather only posts a list of beneficiary families on their website.

3.1.4 Construction

The construction stage is the actual process of building the CSP house unit. Rather than analyzing the quality of the housing produced, here we describe the necessary steps in preparation for the construction itself. Once the subsidy is confirmed, the construction process can take a maximum of three months to be completed. Given that construction companies need to strategize their investment to guarantee profit, there is not much freedom to alter the construction materials or technologies being used. This means that construction of CSP does not vary much across regions, and does not adapt to local environmental conditions.

![Allocation process: Construction](image)

Figure 25: Allocation process: Construction
Source: produced by authors

1. **Construction Company | OFFICIAL**

   *Project development and construction license application*

   Once construction companies have the confirmed families that will receive the subsidy, they apply for the construction license at the local municipality.

2. **Municipalities | OFFICIAL**

   *Construction license approval*
Municipalities review and approve the construction license according to the national construction regulation. Some interviewed municipal officials stated that, contrary to their intentions, they cannot force construction companies to adapt their designs to local environmental conditions. According to the rules of the CSP program, construction companies are not required to adapt the designs to local contexts. Both municipal officials and construction companies confirmed that this adaptation increases the cost of construction and, therefore, diminishes the company's profits. As a result, houses built in urban areas of the Amazon, for example, are built with the same construction techniques and materials as houses in Coastal ones.

3. **FMV - Techo Propio | OFFICIAL**  
   *Initial subsidy release*

   Once the construction company receives the license, FMV delivers 40% of the total subsidy directly to the construction company for them to initiate the construction.

4. **Construction Company and/or Family | Unofficial**  
   *Preparing the lot*

   Before starting the construction, and according to the program guidelines, families are responsible for clearing the lot, leveling the terrain and/or getting rid of anything that might interfere with the construction process. Preparing the lot can include demolishing a part of the existing construction on site, if any. This requires personnel, machinery, and, at the very least, a truck to load the waste. Interviews with families and construction companies revealed that, sometimes, families and companies negotiate ways to solve these issues. In some cases, families pay the construction company a small extra amount to cover for these extra expenses. In other cases, construction companies might consider that the family can't afford to take care of this on their own so they decide to cover these costs at a loss in order to move ahead with the construction. This decision is subjective as it depends on the will and assessment of each construction company.

5. **Construction Company | OFFICIAL**  
   *Construction process*

   Once the initial 40% of the subsidy is released, construction companies are given three months to build the CSP house. As this is a short period, it inevitably pressures construction companies to accelerate the construction. However, complications can arise from environmental conditions such as heavy rain or unexpected soil conditions. As construction companies are usually building many time-constrained CSP homes simultaneously, they constantly try to maximize their time and resources to keep costs as low as possible.
Second subsidy release

Once the construction is finalized and a municipal inspector confirms it, another 40% of the subsidy is delivered to the construction company.

Families move in

Once the construction is finalized, families receive the keys and move in.

Notice of completion

Each local municipality is responsible for supervising the construction to make sure it complies with all the national building regulations. At the end, the municipality issues a notice of completion which is important for the construction company because it certifies that they have completed the work and will entitle them to claim the remaining of the subsidy with FMV and release funds from the bank. The notice of completion is also important for the family to later update the status of their property and value.

However, FMV officials voiced their concern that many municipalities don't have the technical capacity or expertise to properly supervise CSP house constructions. They have encountered several irregularities that prove this, ranging from unfinished houses to finished houses that take several months to finalize revision. These officials assume this can only be due to bribes and the under qualification and understaffing of the municipality's workforce. Once FMV officials confirm this is the case, they open a lawsuit to pursue the construction companies responsible for building these houses. Regarding this issue, one FMV official we spoke to believes that the requirements to become a registered company in the Techo Propio system should be higher in order to avoid these problems.

Final subsidy delivery

With the submission of the notice of completion given by municipalities, FMV delivers the remaining 20% of the subsidy to the construction company and the project is closed.
Overall, the reconstruction of this allocation model reveals that construction companies exercise a major influence in the allocation process of CSP subsidies, something that is not officially recognized. It has taken us months of interviews and research to contrast data and sources in order to decipher how subsidies were actually being allocated. It is not surprising that families don't understand the process and share their frustrations on social media platforms.

We also believe this allocation process has a profound impact, not only on determining which families will have higher chances of getting the subsidy, but on the development of urban areas across Peru as we will address in the next chapter.

3.2 CSP across scales: understanding patterns of distribution

This section analyzes CSP interventions at different urban scales to better understand the patterns of distribution over space and time and visualize potential consequences of the previously described allocation model. This analysis comes from geolocating CSP interventions from 2010 until 2020 – the only years which had an address included in the database we were provided by FMV – and analyzing the density of interventions by spatially standardizing them.

Before proceeding with the analysis, it's important to highlight the way in which municipalities approach urban growth to better understand this following section. Based on our conversations with municipal officials and our research, we were able to deduce that, instead of municipalities planning urban development beforehand, they are actually accepting and even validating organic urban processes led by private actors. These actors may be formal companies and developers, neighbor collectives or land traffickers. The expansion patterns of city edges suggest that municipalities are simply incorporating the spontaneous and arbitrary growth into their updated urban plans and maps instead of guiding the expansion of cities based on impact studies and integral visions.

3.2.1 CPS distribution across city scales

Although most CSP interventions appear in large-scale cities, many interventions happen in intermediate and small-scale cities, as well as in very small urban areas, as the following aerial image shows. It’s not clear how CSP aligns itself with urban growth plans and if the program should prioritize interventions in larger urban centers or smaller ones. According to Libertun de Duren and Guerrero Compeán (2015), medium-scale cities in developing countries are currently absorbing most of the world's urban population growth. This increases the urgency to think about the importance of the quality of urban expansion and housing efforts in medium-scale Latin American cities. Currently, we see CSP operating at different urban scales, even very small intermediary ones, but the strategy for doing so remains unclear.
From an initial analysis of the distribution patterns of CSP interventions, we note that it varies depending on the city scale. We observe that in larger cities the dots show greater concentration in peripheries than in smaller cities which show a more homogeneous distribution of CSP interventions across the urban footprint. We assume that one of the main drivers for this trend relies on the difference in land value and inequality, which result in patterns that suggest higher or lower segregation. In large cities, such as Lima, CSP interventions appear almost exclusively in the peripheries of the city and coincide with low-income districts. Meanwhile, in smaller cities, such as Ica, we observe that CSP interventions are more homogeneously distributed across neighborhoods. To show this variability, we selected three cities that represent large, medium, and small scales in Peru: Lima, Trujillo, and Ica.

<table>
<thead>
<tr>
<th>City</th>
<th>Size</th>
<th>Population</th>
<th>CSP Distribution</th>
<th>CSP Interventions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lima</td>
<td>Large</td>
<td>9.5 million</td>
<td>1.Non uniform</td>
<td>15,838</td>
</tr>
<tr>
<td>Trujillo</td>
<td>Medium</td>
<td>1 million</td>
<td>2.Non uniform</td>
<td>18,763</td>
</tr>
</tbody>
</table>
Lima is a mega large city with a population of over 9.5 million. No other city in Peru compares to the size of Lima in terms of its population and extension. This is the city with the lowest level of homogeneous distribution of CSP, where most interventions appear in areas towards the outskirts of the city. The districts of Ventanilla, Comas, San Juan de Lurigancho, San Juan de Miraflores, Villa Maria del Triunfo, Villa El Salvador and Ate, are among the ones with the highest density of CSP interventions. One potential interpretation for this distribution relies on the higher costs associated with accessing land in Peru's capital which has led to diverse processes of informal land occupation on the peripheries over several generations. The non-uniform distribution could also be reflecting that this city has a higher degree of inequality and segregation.
The city of Trujillo is a medium-size city with a population of over a million inhabitants. Similar to the case of Lima, the distribution of CSP interventions is non-homogeneous. The historical city core of Trujillo can be identified by the two main roads that surround the city center, which has very few CSP interventions. Areas with less interventions coincide with the wealthiest areas of the city, located between the southern part of the city core and areas adjacent to the coast line. Most of the areas where we see CSP interventions coincide with areas that have been recently urbanized in the last decades, showing how CSP is being part of recent trends of urbanization.

![Figure 28: CSP Density in Trujillo (2010-2020)](image)

Source: produced by authors with data from Techo Propio

Finally, the city of Ica is a small-size city with a population of 0.3 million inhabitants. Despite its low population, Ica has received many CSP interventions over the years. This is partially due to an earthquake in 2007 that damaged several houses and the CSP subsidy was used as a reconstruction mechanism. Special calls for submissions were made to attend to this need following the disaster, but later on there's still high rates of interventions in the area. Although La Tinguina, the area to the right of the city core, has been recently urbanized and presents a high concentration of
interventions, we see a more evenly distributed pattern of CSP interventions compared to larger cities.

3.2.2 CSP in neighborhood clusters

As we analyze distribution patterns, some neighborhoods stand out in each city because of their high concentration of CSP interventions, which we refer to as neighborhood clusters. Through reviewing FMV videos and conducting interviews, we learned that FMV promotes local municipalities to provide special considerations for Techo Propio projects. This entails creating special price rates and timelines for providing construction permits specifically for Techo Propio projects. One representative from FMV explains that “Ventanilla has set special timings and costs for all interventions related to CSP and MV” and that “these types of measures are great because they promote more Techo Propio projects”. Finally, she also states that: “I am not saying that all municipalities need to have special ordinances; that depends on the reality of each municipality”. As
a reminder, it is important to note that city governance is fragmented given that a particular city can be governed by multiple municipalities. Lima, for example, has fifty (50) districts. The autonomy of each district explains the different measures taken by each municipality concerning construction incentives and, consequently, the increase in the heterogeneity of CSP density throughout the city.

Some of the districts that are currently implementing these special considerations coincide with neighborhood clusters of CSP projects. We see this in the following map of Lima, where Ventanilla shows a high density of CSP interventions. The darker gradient of the hexagons indicate higher density of CSP interventions. Interestingly, these neighborhoods also coincide with recently urbanized areas.
These neighborhood clusters are also seen in La Tinguiña district, located in the city of Ica. La Tinguiña has been urbanizing rapidly in the last decade and has promoted CSP vigorously as stated by one municipal officer working in the cadastre department.
3.2.3 Acupuncture interventions across time and space

The CSP model targets families as the unit of intervention without any other territorial strategy beyond the aforementioned site prioritization done by construction companies. When analyzing interventions through time, we see construction companies repeat their CSP insertions year after year in the same areas. We call this micro-scale approach acupuncture interventions as it lacks a larger scale perspective, even if insertions happen multiple times in the same particular place.

There are multiple ways of seeing the inefficiencies inherent in an acupuncture-style model of intervention. The patterns of CSP interventions from the years 2010 to 2020 suggest that they have been delivered without a clear strategy in mind. The result of a program that lacks a transversal territorial strategy for prioritization, and whose interventions are driven by different construction companies that operate in the same territories, is recurring CSP interventions in the same neighborhood over the 10 years of the program's lifespan to which we had access.
Figure 33: CSP interventions in ICA over time (2010-2020)
Source: produced by authors with data from Techo Propio
Figure 34: CSP interventions in Arequipa over time (2010–2020)
Source: produced by authors with data from Techo Propio
Figure 35: CSP interventions in Arequipa and Ica over time (2010–2020)
Source: produced by authors
Even though construction companies have the incentive to prioritize building in the same neighborhood to reduce operational costs, in reality, it's not always possible. This is due, on one hand, to the tenure status of each family as not all families in the neighborhood acquire the necessary legal documents to account for their tenure at the same moment. Second, families only engage with the program if they learn about it from friends and family, or if they are visited by a construction company. The fact that families learn about the program and engage with it in a spontaneous and unpredicted way, hinders the opportunity to build all the needed CSP in the same neighborhood within the same time frame. The current model allows for several companies to be operating in the same area throughout the years, which means that the recruiting work is most probably being duplicated and, therefore, incurring in higher operational costs. These could diminish if the recruiting and allocation task was done in a more systematized way. The common rationale would be that this “healthy” competition among construction companies would be an incentive for them to improve the quality of the CSP houses being built. However, this appears to not be the case.

Once again, all of this reveals the lack of both a necessary pre-evaluation of families’ needs and the absence of a territorial strategy to deploy CSP interventions from the government side. The current acupuncture model represents a missed opportunity for more integral neighborhood-wide improvements, increased efficiency in the use of public funds, and even higher profits for construction companies who could plan the mobilization of their resources in a more systematized way.

### 3.3 Privatized prioritization

Given the way this program has been modelled there will always be more families deemed eligible than available subsidies. Based on conversations with FMV officials, we learned that, on average, 70% of eligible families will not receive the subsidy in each call for submission. The consequent question regarding policy is: how to prioritize families? Through our research we've found that the private sector (construction companies) is currently the sole actor responsible for the prioritization process beyond the basic filter done by Techo Propio. This fundamentally determines the overall impact and reach of the program.

FMV defines eligibility solely based on a few attributes of the families (family income, dependents, land ownership, etc.). It does not determine any further criteria based on location or territorial characteristics, let alone provide guidelines to prioritize amongst a large number of eligible families. The only case in which there is specific selection criteria is for special calls for submissions to respond to natural disasters (damaged houses by earthquakes or floods by El Niño, for example) or when the government intends to benefit specific communities (like victims of terrorism, for example). These cases represent a small portion of the total number of calls for submissions. For the standard calls for submissions, there are no quotas for any specific region, province, district, or city.
that might have a greater overall housing deficit. Additionally, the application forms do not ask families to report any condition that might suggest they are in greater vulnerability, for example, if the household is being run by a single parent, if there are any family members with disabilities, or the number of kids and elderly members.

As a result, construction companies fill these voids left by the government by applying their own criteria to prioritize. In the first place, they do so by choosing in which regions, provinces, districts, and neighborhoods to work in, limiting the families that will even have the chance to apply to CSP subsidies. Among those selected areas, most construction companies prioritize families whose sites they have deemed to be easier to build based on their assessment of land readiness. The way in which each construction company defines land readiness may vary, but is usually a combination of the characteristics of the site – location, terrain slope, soil, accessibility, etc. – and proximity to the rest of CSP projects in their current pipeline. It is important to note that families who own lots with land readiness are not necessarily those families who are in greater need of the CSP house. Further research and analysis is needed to determine this. Additionally, none of the companies interviewed suggested any type of prioritization based on further social attributes of the families.

Evidently, land readiness is an important factor for the sustainability of the program and it is surprising that neither FMV nor the Ministry of Housing seem to consider it. We suggest that further analysis is needed to understand the extent to which considering criteria for land readiness facilitates or hinders the possibilities of reaching the families this program is designed to target.

Figure 36: Prioritization process by Techo Propio and construction companies as reconstructed through research and interviews.
Source: produced by authors
Additionally, we suggest it is important to review the current filters applied by Techo Propio and how they could be further refined, especially the income filter. As FMV assesses families according to the formal income reports provided by SUNAT, many families could be mis-targeted given that the informal economy represents around 70% in Peru. This issue came to our attention in conversations with families, construction companies, and government officials themselves. Some families complained that their wealthier neighbors got the subsidy even though there were neighbors in greater need of the CSP house. One engineer from a construction company reported that he realizes that sometimes the program mis-targets families. He stated that “I have built a CSP unit for families who have large fancy SUVs, even better than my own!” and “some families ask me not to build any internal walls in the house because they want the whole module to become their living room and they will build the rest of the house”. Another representative from a construction company shared that he had visited a CSP house a few months after building it and he realized the family had already destroyed part of it and had built three more floors above. Government officials from FMV seemed to be aware of the limitations of their current approach to assess income level, but stated that they didn’t have any other means of filtering informal income sources.

Figure 37: Map of CSP interventions in Peru (2010-2020) (left), and map of qualitative housing deficit (right)
Source: produced by authors with data from FMV (left) and INEI, 2007 (right)
The question is, to what extent is the design of the CSP allocation model targeting the families it’s supposed to? The map on the right represents the qualitative housing deficit in Peru as of 2007, the most recent year we have this data for. The region with the highest deficit is Lima, the capital, where a third of the peruvian population currently lives. When we look at which regions have received the most CSP in the past 20 years, we see it has concentrated in the north of Peru and along the coast. The southern and Amazon regions have not received similar attention, despite their evident housing deficit. It seems that CSP interventions over the last two decades do not match all the regions that apparently needed it the most in 2007.

In summary, as we have shown in the previous chapter, there are several voids in the allocation process that construction companies fill through “unofficial steps”. Given the lack of targeting done by the government, construction companies prioritize eligible families and allocate CSP houses according to their own convenience. This means that, in practice, construction companies have much decision-making power in determining which families will receive the CSP subsidy and therefore get a free home. They do so from the very selection of the areas they deem convenient to work in, their perception of which families may qualify, their decision on which families to actively pursue, and, finally, in the priority given to certain families over others during the final submission of the family’s application file. None of these steps are recognized officially by FMV as part of the allocation process. The consequence of a model driven by privatized prioritization is that, rather than families being identified based on their need for a home, lots are identified based on the opportunity they offer to maximize profits for construction companies.

As FMV allocates subsidies each year without guaranteeing future calls for submission, the program operates under great uncertainty, which is even increased by political unpredictability. This means that who gets prioritized in each call of submissions is crucial as each open call might be the last chance for many families –and for construction companies– to benefit from CSP.
Chapter 4

Power, tension, and dynamics in the delivery of CSP housing

After understanding the current allocation model, in this chapter we want to further analyze the consequences of such a model, as well as revisit some of its assumptions in more detail. What are some of the consequences of completely relying on construction companies to do most of the implementation of the CSP program? How are families responding to their passive role in the model? How does the program align with land formalization processes? And, what are some missed opportunities for greater impact? We will further explore each in the following sections, in an effort to further discuss the successes and limitations of the CSP model design.

4.1 Obscure process from the family perspective

Families perceive the whole allocation process to be obscure, confusing, arbitrary, and frustrating, which decreases their trust in the program. In addition to interviewing families, we especially learned this from reviewing hundreds of posts on unofficial Facebook groups. Through these groups we noticed that many families think the program is a scam, as one promoter confirmed it: “Families don’t believe that the government gives houses for free so I have to do a lot of explaining to gain people’s trust”. We’ve identified five main reasons that reflect reduced trust in the Techo Propio program, especially regarding the CSP component, from the family’s perspective.

First, as aforementioned, FMV is not easily and directly reachable by families. Rather than having decentralized offices in regions across Peru, FMV only has one office in Lima’s main business center. This means that, for most families, the only way of talking with a FMV representative is through their call center. Through interviews with FMV officials we learned that, a few years before the COVID-19 pandemic started, they had made partnerships with certain regional governments to have a FMV representative in their offices whose role was to guide families. Since the pandemic, they cancelled these partnerships and these local governments can not provide the necessary guidance to families anymore.

Second, most local governments lack the capabilities to guide families in their territories. Without a clear role and responsibility in the process of applying to CSP, municipal officials stated that they recommend interested families to seek guidance directly from construction companies. As municipalities do not have any responsibility for the provision of housing, their involvement is very variable, if not null. Only some local governments have a more active role in promoting and guiding
families, but it seems that the only incentive would be political gain. Families then mostly depend on the guidance and information provided by construction companies to understand the process and their potential eligibility.

Third, in many cases construction companies’ presence in the neighborhoods is volatile and unreliable. In the cases where construction companies do have offices, these are usually in the city center, far away from the neighborhoods they intend to serve. Also, some promoters and construction companies are not part of the community and don’t take the time to explain the process in detail to families. As a result, they play with family’s expectations as they come and go from neighborhoods. To make matters worse, in areas where there is active competition between many construction companies, we learned that promoters sometimes even “steal” the clients between each other, oftentimes by spreading bad reputations about each other’s companies.

In many cases, it seems that promoters are the ones who become the face of the program, who many times are not even formal employees of construction companies. These individuals need to gain the trust of families on a one-on-one basis, which is hardly transferable to the program as a whole. One promoter stated that she is honest with families about the program and their chances of getting the subsidy because it’s important for her to maintain her local reputation. She follows up with every single one of her cases and guides families through the process. But it’s hard for families to hold promoters accountable to the promises made, especially when they do not belong to the local area.

Fourth, it’s important to note that construction companies’ online presence is rather confusing as they directly use the Techo Propio brand. This makes it hard for families to differentiate if they are talking to a government representative or a private company. Roles and responsibilities become even more confusing for families who are trying to navigate this process for the first time. Aside from their official Facebook page, we did not see any participation from FMV government officials in any of the Techo Propio Facebook groups where the companies interact with families, nor arbitraging their online presence. The following images are examples from Facebook posts that show how construction companies use the Techo Propio brand and promote the service in a mercantilist way:

“Techo Propio at your service”
“We are an accredited construction company by FMV. Call us so we can be at your service.”
“Techo Propio in Lambayeque”
“Make your dream of having your own house come true. It’s easy and affordable for everyone. Improve your and your families quality of life. This is not through a competition or raffle, just meet the requirements and that’s it.”

“Techo Propio in Lima”
“Applications open through our platforms.

Remember:
The main requirement is to have only one lot with property rights given by COFOPRI or SUNARP.

Important:
Every person will be evaluated first.

Careful:
Applications are free, don’t let anyone else fool yourself”

Fifth, families hear conflicting stories from their relatives and friends about their interaction with Techo Propio. For example, they hear stories in which construction companies get the subsidy and then disappear without building or finishing the home. They may also hear stories of wealthier neighbors receiving the subsidy, or others who even had to pay construction companies. These stories get amplified through Facebook groups as families share the publications and are incentivized to post their own experience.

We believe that this mistrust is worsened by the obscurity of the allocation model itself. Many families state to have been in this process for up to five years. After trying multiple times and not receiving a clear answer for why they are not getting the subsidy, it’s easy to comprehend why families get frustrated. Families might be recommended by Techo Propio to switch construction companies if they don’t receive the subsidy after two rounds. For families, this means searching for other construction companies, building trust with them, and providing them with all their
documentation once again. Sadly, not all families even have the option of switching companies given that, in many areas, there are not enough companies to choose from.

The asymmetry of information and power between construction companies and families leave these last ones feeling powerless in the face of a system they do not understand and where they don't have any agency or control. Families spend much time and effort trying to find an explanation as to why they are not getting the subsidy, but are usually told by construction companies and FMV to simply wait and let the construction company handle the entire process.

"I have presented my documents more than 4 times. My paperwork was supposed to be in the hands of construction companies but no one calls me. The construction company tells me I have to re-submit the paperwork because they expired. All of this seems very strange."

"I have been through three construction companies and none of them made my home. It's been three years now. I have been told I am eligible and my documents are in order. They don't care, there is no control from the government so they do whatever they want."

As a consequence, applying to the CSP program is an endeavor that comes with high uncertainty and risk for each family. The uncertainty affects their family's life plans as well as some families hold off from pursuing credits to build their house on their own because they are waiting to get the CSP subsidy. Also, gathering the necessary documentation represents a great investment of time and money, which doesn't even guarantee that they will become beneficiaries. As CSP is the only
program for low-income families who already own a lot, these families can only choose to continue waiting for the subsidy or opt out and figure out other ways to build on their own.

To summarize, the program design relies on construction companies to be the visible face and representatives of the program on the ground. Our research suggests that this may not be enough for families to trust the program. Official points of contact with the FMV are scarce, while most municipalities are not equipped to properly guide families. The wide asymmetry of information and power between families and construction companies creates a deep gap that is hard to overcome for trust to prosper. We provide some recommendations towards the end of this document.

4.2 Assumptions and limitations in the program design

As we mentioned in the first chapter, the theory behind the housing model, adopted by Peru since the beginning of the 20th century, argued for a market-based approach. It was claimed that competition among construction companies would deliver the best results for families, for the government, and for companies themselves. Competition and an appetite for profit maximization would make the best use of funds and meet the demand wherever it was. After reconstructing the way the CSP allocation model is actually being implemented, we have uncovered that some of the premises upon which the model is based might not be working as expected.

The current CSP model design assumes that everyone who meets the broad socio demographic criteria set by the Techo Propio program deserves a house on equal terms. Under this premise, construction companies would only need to constantly find them and build their CSP homes. This assumption ignores the diversity of families’ real circumstances, which means that some families might be in a more vulnerable situation and therefore in greater need of a home than others.

The large number of families who fit the requisites set by Techo Propio means that a prioritization process needs to happen. The lack of any prioritization criteria set by FMV or the Ministry of Housing leaves important voids that are then filled by construction companies’ own criteria. Therefore, instead of construction companies competing with each other to be chosen by families who have been given a subsidy, the program design –intentionally or not– allows companies to prioritize who to build for. In practice, the ones competing with each other are actually families’ sites, not companies. Sites compete to be chosen by construction companies. It is site or land readiness that determines which families will receive the subsidy and which will not be prioritized.

Assuming that construction companies can manage and service families adequately, ignores that the thin profit margins under this model incentivize companies to cut costs. In this case, cutting costs might mean building as many units as they can in the same area instead of building in other areas that might be in greater need. ‘Unnecessary work’ can be catalogued as performing primary market
research to understand demand more in depth, explaining in detail to each family how the program works, managing families's expectations, and communicating constantly with them. These are all activities that don't necessarily represent any further gain but rather just a loss for these construction companies.

![Diagram](image)

*Figure 40: Diagram representing the program design by contrasting the ‘Plan’ vs. the ‘Reality’*

*Source: produced by authors*

Attending the housing needs of families in urban areas that are not so easily accessible also represents a higher cost, so companies prefer to compete for easier-to-build areas, such as Coastal areas, rather than incurring in higher costs of opening operations in new territories. This is also true for building on a second floor because companies would have to assess the existing structures and strengthen them if necessary, again incurring higher costs.

An important consequence of the lack of competition between companies is that there's no incentive to improve the quality of homes being built. Construction companies only need to comply with the national building regulation. Some local municipalities interviewed stated that they had asked construction companies to include local materials or build the houses according to local environmental conditions, but construction companies declined because their earnings are fixed and those changes would imply higher costs. In the same manner, FMV officials stated to be aware of the lack of adaptation in the implementation of CSP houses in diverse territories, but considered that the Ministry of Housing should be responsible for incorporating these parameters.
Are construction companies actually the best for assessing the housing demand and meeting it?
The ‘demand assessment’ process that we identified through our interviews with construction companies’ executives turns out to be a very intuitive one guided by many perceptions. Besides that, construction companies serve the urban areas most likely to be the most profitable to build in because of low operational costs. FMV officials recognized that there are some areas where construction companies simply don’t want to build, resulting in unattended families. This was the case of families who suffered the damages of an earthquake in Arequipa several years ago and, even though FMV increased the subsidy amount to make it more appealing for companies, they still resist working in this area and families remain unattended. The pursuit of limited profit in farther territories may not be enough to incentivize companies to meet such demand.

In the following maps we can see the current number of registered companies per region (left) and notice that the regions with more companies do not necessarily match the regions that reported higher urban housing deficit in 2007 (right). Construction companies’ distribution across the country is not uniform and does not seem to be completely matching the demand. In summary, not all regions’ housing demands are being served equally under the current model.

![Maps showing construction companies distribution and housing deficit](image)

Figure 41: Construction companies distribution across regions (left) & Qualitative housing deficit across regions (right)
Source: produced by authors with data from Techo Propio (left) and INEI (right)

This competition-based approach for the allocation of subsidies stands out in a country where most social programs run by the Peruvian government treat targeting and subsidy allocation as a highly
A scrutinized task. For example, the program “Juntos”, a conditional transfers program, geographically targets families in poverty and then analyzes the conditions at the home level. As documented by Correa & Roopnaraine (2014), the geographic targeting looks at statistical information from the Census and national surveys to prioritize the districts to intervene. Once the districts are selected, families are targeted according to their poverty level reported in the SISFOH system, Sistema de Focalización de Hogares (the System for Targeting Houses). Social workers register potential families information to analyze if they comply with the criteria so they can become “eligible”. The program also performs communal gatherings for families’ eligibility validation, which means making the information of the selected families public and submitting their final eligibility to the communal response. This practice has been highly valued to prevent local leaders and government officials from benefitting certain people that might not actually qualify. The social workers and local leaders use official public assemblies to thoroughly communicate how the program and process work. Although the program has its own challenges, it’s considered to be targeting the people who need it the most.

*Are construction companies necessary intermediaries between the Techo Propio program and families?*  
Our results suggest that having companies as the intermediaries and main actors in the whole allocation process may not be contributing to building trust in the program. Currently, construction companies manage the whole application process and are the ones who communicate directly with the government officials. Even if families in Lima –the only city where FMV has offices– manage to register directly with the FMV and are deemed eligible, families cannot complete their application to the program if there are no construction companies that endorse their application by developing their file and submitting it. Instead of families registering freely through different means, the FMV analyzing their eligibility and then making a bid for companies to build the houses for the selected families, the construction companies under the current model have a protagonistic role while families have almost none.

*Are municipalities only necessary during construction supervision?*  
FMV considers local municipalities to be a crucial partner in supervising the construction of the CSP houses in the diverse territories. Originally, some municipalities even had the capacity to register families in the Techo Propio system. The primary limitation is that municipalities don’t have any responsibility to provide housing for the population in their territories according to the “Ley Orgánica de Municipalidades” (Municipal Law). This implies that Techo Propio officials need to “sell” the idea to local municipalities of why it’s in their best interest to collaborate with construction companies and the Techo Propio program in general. The program argues that CSP houses will bring them more taxes and that more houses will bring more commercial activity. In summary, housing is defined as a national endeavor, not a local one. In other countries, such as South Africa, local municipalities play a crucial role in analyzing housing demand to later determine the allocation process (Tissington et. al, 2013). Municipalities not only assess the quantitative housing gap through a census and surveys, but also analyze qualitatively what kind of housing the families need in their
territories. This information later informs the national housing allocation processes and determines how the private sector is involved in the process. It could be further assessed how to better engage municipalities as key territorial partners to better balance current power dynamics in the program design and decentralize operations.

Finally, we consider that our findings suggest a revision of the assumptions and premises upon which this model is based. Revisiting those in light of the new evidence could ignite an informed discussion around how to better serve families and allocate public funds.

4.3 The nonalignment between land formalization and house provision processes

A formal property title is one of the main requirements for a family to apply to the CSP program. While this may seem reasonable, it is a measure that automatically excludes a portion of the population that could otherwise be eligible for this program. This means that the claim that Techo Propio serves families nationwide is actually immediately reduced to areas that have gone through formalization processes. So, rather than there being a large-scale effort to support specific areas of the city in preparation for CSP interventions, Techo Propio expects families to be responsible for this process, which means initiating and paying for the procedure.

COFOPRI (Organismo de Formalización de la Propiedad Informal) is the entity in charge of formalizing the tenure of families. It usually does so through a prioritization process based on their strategies and the pressure by local municipalities and other entities. The process of formalization is composed of a neighborhood scale effort from COFOPRI and local leaders, and an individual effort from each family. In the first place, families who live in a neighborhood with informal tenure of land depend on COFOPRI reaching their community to initiate the process of formalization. In order for COFOPRI to formalize the tenure, families need to prove their occupancy by providing a “constancia de posesión” (possession proof) –their purchase-sale contracts or a municipal appraisal– along with receipts of paid services. COFOPRI reviews this information and verifies that the claimed lot does not correspond to private property or that it is under judicial scrutiny. COFOPRI then gives families a preliminary property title which then they have to register in SUNARP for it to be considered valid for the Techo Propio requirements.

As this is not a process that families can initiate individually, neighborhoods have to wait for COFOPRI or depend on the will of local municipalities to pressure COFOPRI in prioritizing their areas, as shared by one of our interviewees. In this particular case discussed with a municipal representative, CSP represented the incentive for the municipality to pressure COFOPRI but we cannot confirm how widespread this practice might be.
Information collected through interviews suggests that construction companies may influence the prioritization done by COFOPRI. A few company representatives shared that they have worked in districts where families currently don't have titles but they have 'worked' with the municipality and COFOPRI to prioritize the area. Given that COFOPRI operates in partnership with local municipalities, there is room for clientelism by municipal authorities who boost their political campaign through successful formalizations and even CSP interventions. In the end, this reflects the existence of a dual approach: the government expects families to individually apply to Techo Propio but does not match the collective nature of the land formalization process in the hands of public agencies.

In summary, Techo Propio takes an individual approach to families as it requires them to prepare and apply to the program through their own means, but ignores the barriers in the system that make this process challenging. Moreover, the program is promoting formalization processes house by house, without a systematic approach. Formalizing property is a tedious process; it's not straightforward and it does not depend solely on the families. Overall, the way in which the program is designed represents a lost opportunity for the government to systemically and strategically regularize areas, make the process of Techo Propio more efficient, and alleviate the burden for families.

### 4.4 Missed opportunity for better densification

The CSP program presents an interesting opportunity to densify urban areas as, according to its guidelines, it allows the house unit to be built over an existing first floor. This is a particularly pressing issue given the fast and low-density expansion of peripheries and the prediction that most cities in Latin America will double their size by 2035 (Inostroza et al. 2013, p.97). However, this potential for densification is actually not being leveraged by the program.

In the first place, Techo Propio requires that the air rights of the property become legally independent, which means getting their own property title before building. This is an expensive and time consuming process that most families in the targeted population cannot afford. Second, building upon an existing structure represents additional efforts and costs for construction companies because they need to review the structural quality and strengthen it if necessary. Unfortunately, the databases shared by Techo Propio did not include any information regarding the type of property the CSP house unit was built upon, being either an empty lot or an existing first floor. Therefore, we do not know precisely how many house units have been built on top of existing structures. All the program officials consulted at FMV stated that they had never seen nor heard of a CSP unit being built over existing structures.

Local municipalities and, specially, construction companies recommend families with larger lots to formally subdivide it so that different family members are able to apply to the program.
independently. Subdividing is a very similar process as making the air independization process with the difference that construction companies actively promote subdivision. This is explained by the fact that subdivision allows construction companies to build several CSP in one same location and therefore minimize logistics, transportation and administrative costs as they are basically dealing with the same family and site. Families must initiate this process at the municipality and it requires a significant payment to cover the multiple administrative costs. Additionally, families usually need to hire professionals to design the plans of the subdivided lot. For example, a municipal official stated that in Ica the total cost of subdividing a lot in two would cost around $300. It should be further studied if construction companies further engage in their promotion of subdivision by, for example, providing themselves the plans for the new subdivided lot. From our interviews we did hear that they recommend different subdivision criteria to families in order for their lots to be better sized for the CSP program.

The following diagrams depict different configurations for subdivision, as described by construction companies during interviews. As shown, lotization requirements vary greatly throughout municipalities. From the conversations with municipal officials we know the minimum lot size can range from 35m$^2$ to 65m$^2$. Not only does the criteria for subdivision vary depending on the municipality, but also on the minimum lot size and characteristics accepted by construction companies. For example, one construction company requires subdivided lots to be greater than 100m$^2$ and have direct access to the street. Other construction companies allow for a pathway to be made in order to access the lots that do not have access to the street. Others require lots to have a minimum size of 60m$^2$.

Subdivision in itself should not be considered negative given that it promotes higher density and reduces sprawl given that more households are living in otherwise lower-density areas. However, if not guided, it promotes the fragmentation of urban land. This fragmentation could eventually make it harder to grow vertically and, consequently, densify. Interviews with different workers from construction companies explained how, occasionally, CSP houses are built in such tight areas that they are touching each other. This is considered to be too dense and reduce the quality of these CSP houses, even if there is a goal to reduce sprawl. Currently, local municipalities are not guiding subdivisions with a clear vision for the future that ensures the most beneficial densification. Once again, unclear guidelines, variable criteria, and the urge to profit from CSP, overrules the efforts to plan the implementation of the program and the urban development.
Figure 42: Examples of how lots are subdivided
Source: produced by authors
Chapter 5

Conclusions and recommendations

5.1 Conclusions

Our initial curiosity on how exactly families become beneficiaries under the single most financially-supported affordable housing program in Peru in recent years, led us to understand some of the limitations at the core of the prevalent neoliberal housing approach. Through this thesis we have elucidated the allocation process of Construcción en Sitio Propio (CSP), a component within the Techo Propio program, which subsidizes the construction of 35m² homes for low-income families who already own a lot. This program was modelled after Chile’s neoliberal housing policies and is underpinned by a market-driven approach to housing production. It was built on the premise that the government should limit their role to regulation and the provision of funds, while the market manages the entire execution.

As we described in Chapter 3, the CSP’s allocation model consists of four main phases: Preparation, Registration, Selection and Construction. Within each phase, we identified a series of official and unofficial steps being carried out by the different stakeholders. Unofficial steps are not illegal actions, but simply steps that are not part of the formal narrative projected by the Techo Propio program. The identification of these unofficial steps allowed us to uncover the vast influence the private sector has in the allocation of CSP subsidies under the current model.

In the first place, we would like to acknowledge that this model has activated a construction industry focused on affordable housing that did not previously exist and that has provided many families with a house, otherwise not accessible. Nevertheless, the evidence provided in previous chapters would suggest that the current program design is not sufficient to fully address the low-income population it’s supposed to serve. We argue that the identified issues are not a product of a flawed implementation of CSP, but that they are rather rooted in the design of the program itself. The current model relies heavily on construction companies to identify families, process their documentation, design the house, manage construction licenses, and build; while the government’s role is limited to managing construction companies, reviewing family’s documentation, and releasing the funds. The program design disproportionately favors the private sector –construction companies– as the protagonist, while families have a completely secondary role throughout the process. Overall, the reliance on the private sector has become a substitute for state intervention in the allocation of housing, arbitrarily impacting which lower-income households become beneficiaries.
Given the large housing demand—people applying to the program represent three times the number of subsidies available—a prioritization system is undeniably necessary to allocate the limited subsidies available every year. Nevertheless, beyond the initial requirements to apply—income under $740, have dependents, own one formal property, etc.—FMV does not prioritize or provide any further criteria to do so. As we have described, standard calls for submission by FMV do not provide any quota or guidelines regarding which areas should be attended first or which families should be served first. In response to these voids, construction companies are left alone to prioritize along the several steps that compose the allocation process. Companies prioritize in order to maximize their profit margins by identifying areas with a potential large demand for CSP units and opportunities to reduce operational costs. Secondly, among those areas, they give priority to family’s sites that have the greatest land readiness, meaning they gather certain characteristics that make them easier to build on—easy to access for trucks, flat terrain, adequate soil, with water and sanitation, etc.—and therefore their profit margins will be larger. We’ve identified that, in reality, sites compete among each other to be prioritized by companies instead of families, and companies do not compete to be selected by families with subsidies.

This prioritization implies that less populated urban areas where it’s harder to scale operations and family’s sites that present more complications to be built, may remain unserved by the current model. The assumption that territorial criteria is not necessary, ignores the diversity of housing needs across the country and the capabilities of governments and companies to satisfy them accordingly. The spatial patterns of CSP interventions reveal a skewed benefit to Coastal regions over Amazonian and Andean regions in Peru, despite the high housing demand in the urban areas in the latter ones as well. In large cities, like Lima, the patterns also reveal that CSP interventions are built towards the peripheries, in areas that are not well served with urban infrastructure and services; in smaller cities, the patterns of CSP interventions are more homogeneously distributed. All the FMV officials we interviewed seemed aware that the final prioritization for subsidy allocation was in the hands of construction companies based on their potential profitability, but did not appear to fully realize the consequences of this model.

These consequences may include frustration and distrust in the program among families given the obscurities around the allocation process; unalignment with local urban plans or territorial initiatives by local actors; and, above all, potential mistargeting of the population it is supposed to serve. As aforementioned, the current model of privatized prioritization favors sites—and families—with greater land readiness. Are those families the ones who need the subsidy the most? If land readiness and scale are necessary components for the financial sustainability of CSP – Techo Propio, we consider that further analysis and research should be carried out to fully understand the consequences of such prioritization criteria.

Although construction companies benefit from prioritizing which families to build for, we have repeatedly heard how much they resent having to do this task. Recruiting families is an expensive
and labor-intensive process, as companies do not only have to manage interested families, but they also have to actively recruit them by publicizing the program, doing fieldwork, and building trust with each family separately. They consider it a tedious task, therefore most companies try to outsource it. Also, it's a task they are definitely not trained for. From the perspective of the use of public funds, these manual processes seem to be an inefficient deployment of efforts and resources given that several companies are surveying territories at the same time and building trust on themselves rather than on the program as a whole.

We consider there are some missed opportunities for the program to be more efficient and/or scale its impact. First, interventions should be integrated with local urban plans. The program targets individual family lots as the unit of intervention, delivering what we call, acupuncture interventions in cities without a clear long-term vision of urbanization. As a result, the program misses the opportunity to combine efforts and provide integral neighborhood-scale improvements. Second, construction on second-floors should be facilitated to promote densification. The CSP program already allows the CSP housing unit to be built over a pre-existing first-floor. In addition to the fact that the legal independization of air rights is expensive, construction companies don't have any incentives to build over existing constructions. By facilitating access to air rights and incentivizing companies, the program could promote the densification of urban areas. Third, the model depends on families having access to land. But the reality is that, given the current land market, most low-income families rely on informal occupation of land which will later need to be formalized for families to have a property title that allows them to apply to CSP. The current mismatch between the required individual action and territorial land formalization processes could be improved by better coordination between FMV and COFOPRI, the entities in charge of subsidy provision and land formalization, as well as by land value regulations. Fourth, and lastly, municipalities’ role is limited to the supervision of construction. The current model is heavily centralized with very poor engagement of local governments. Municipal law could be updated to include competencies regarding the provision of housing so the support from local municipalities does not depend solely on their will.

Many questions remain unanswered and we encourage future researchers to look into some of the following areas:

- Who is actually being benefited by CSP - Techo Propio? A deep impact assessment is needed to really understand if the intended population it’s supposed to serve is really gaining or not, and, if not, who is being left out?
- How many of the CSP houses built are still being used by the original beneficiary family? How many have been sold/rented and why?
- How much is the CSP house contributing to improving the well-being of families?
- What fraction of the building of CSP homes on people's 'own sites' entails replacement of a substandard home on that site? Presumably those cases would contribute with qualitative deficit reduction, but don't help with quantitative.
- How do neighbors react to CSP interventions happening in their neighborhood, or even on their next-door lot?
- What quality of city are CSP houses built in? Do they have access to livelihoods, transportation, etc? How do CSP interventions align with urban growth plans, if they exist?
- Given that the program relies on families having a site which probably has been acquired through informal processes by previous generations, to what extent is CSP promoting the informal urbanization of land?

We definitely encourage the Peruvian government to perform an independent impact analysis to understand the positive and negative effects of the CSP program on the beneficiary families to further inform how it could be improved in the short and long-term. We also encourage academia to take on some of these research areas as we expect that their answers would be transversal to housing programs in other countries and could inform debates and courses of action.

Finally, compared to various experiences in housing across Latin America in which families are forced to relocate or perversely incentivized to move, we recognize that CSP is a program that, by building the houses on the lot where families already live or own, allows families to maintain their social ties and/or livelihoods. However, as this is the only housing program that attends this sector of the population, improvements are needed given that families have limited options. This thesis has shown the limitations but also the potential for improvements for this and similar programs. By reconstructing the allocation model of CSP subsidies, we reveal some of the consequences of limiting the role of the state and over-depending on the private sector in the provision of housing, discuss who is currently worthy of being benefited, and contribute to the debate on overall implications for sustainable city-making processes. We hope our findings and conclusions can help reflect on potential improvements for this and similar programs, and ultimately contribute to discussions on the roles the public and private sectors should have in the provision of affordable housing across Latin America.

5.2 Recommendations

First, we believe that the model would benefit from having the government be responsible for the allocation process. Once the families have been selected through a transparent process, FMV could perform a public bid for companies to build the homes. Along these lines, we believe that construction companies are not the actors who should be in charge of recruiting and filtering families. Not only does this result in benefitting certain families whose sites will render larger profits for them, but it also yields inefficient allocation of time and resources to reach and select families. By removing construction companies from this particular role, they could be required to allocate
greater resources to improving the quality of CSP homes and even increase their profits by reinvesting their time currently spent on recruitment and targeting. If FMV performs the allocation process, they should then also be responsible for communicating directly with families. This would create a direct channel with families and increase their trust towards the program.

Recently, Techo Propio has started to ask construction companies to input the families site location information as a part of the final project file submission. It would be interesting if this information was gathered in earlier stages of the process in order to understand where the demand for housing is greater. Additionally, we suggest that the data from all eligible families become public –in an anonymized way– in order to understand where the demand is and have a better understanding of who are the families awaiting the CSP subsidy.

There is also a need to design a prioritization model that carefully considers the input criteria. More sociodemographic data should be gathered from interested and/or eligible families in order to understand their characteristics and needs and incorporate this into the prioritization model. The efforts to improve the quality of housing cannot ignore or be planned in isolation from other programs that improve urban quality--for example, formalization processes or urban plans that extend infrastructure and services.

We are aware that the capacities of local municipalities are highly variable. However, we believe that they are the territorial governance level that has greater understanding of the locality and on-the-ground processes. On one hand, municipalities could be a vehicle to articulate current urban efforts. On the other hand, they could be empowered to better guide families as a constant governance presence given that families mistrust people and programs that come and go.

Finally, the FMV can learn from the targeting efforts currently being used in the Ministry of Social Inclusion and other programs to deliver thousands of social benefits to the poorest families in the country, as well as from other allocation models in other countries.
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Appendix

Methodology
All the quantitative and qualitative research was done between March and July 2021 by both authors.

Qualitative
Given the COVID-19 pandemic, all our interviews were conducted online through Zoom and Whatsapp. This context increased the difficulty of reaching the right people to talk to since many offices, both from the public and private sectors, were closed. We could only rely on phone conversations and social media to identify people to contact.

We reached out to more than 30 companies from the Techo Propio web dataset and from Facebook with the intention of interviewing them. Most of the companies we reached out to were large and medium-size companies. Many declined, others never answered, and the resulting 5 in the following list are the ones who accepted to have a conversation. In the case of government officials, we also reached out to more than 5 local governments, but only the following responded. Families were the hardest stakeholders to recruit. Despite joining 22 Facebook groups about Techo Propio, releasing surveys, and commenting on people’s posts, it was very difficult to schedule conversations. The two families that agreed were introduced to us by a promotora.

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<th>Interviewee Role</th>
<th>Organization</th>
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<td>Fondo Mi Vivienda</td>
</tr>
<tr>
<td>2</td>
<td>Leader of Real Estate Projects, Real Estate &amp; Social Projects Department</td>
<td>Fondo Mi Vivienda</td>
</tr>
<tr>
<td>3</td>
<td>Techo Propio Specialist, Operations Department</td>
<td>Fondo Mi Vivienda</td>
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<td>4</td>
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<td>Fondo Mi Vivienda</td>
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Families
Quantitative

Fondo Mi Vivienda provided us with three spreadsheets containing data about CSP, AVN and MV from 2003 until mid 2020. These spreadsheets represent a compilation they made in response to our request for historical data since the beginning of the Techo Propio program. They did mention that since they’ve had several data repositories they couldn’t confirm that it’s 100% complete, but it’s the most accurate and complete they managed to gather. The data before 2010 doesn’t have addresses so we couldn't geocode it. As it did have regions of intervention, we were able to use the whole data set (2003-2020) for some of the graphs.

Here is a summary of the process we followed to prepare and analyze the data:

- Given that addresses were not consistent in their spelling, we did nine tests to figure out the best spelling for ArcGis Pro to geocode it.
- Once we understood which ways of spelling reduced the missing or mismatched addresses, we standardized all addresses according to those parameters by using R.
- We then prepared a new data set with the corrected addresses and regions for each year.
- Each data set was run in ArcGis Pro to geocode the addresses. On average we lost less than 15% of the data after running it through ArcGis. We revised if the results were accurate by comparing their information about the region with data from OpenStreetMap.
- To represent the density of CSP interventions in some cities, we created a hexagon grid and automatically counted the points in each hexagon to then be able to represent density.