

**Politecnico di Torino**

Department Of Architecture

Master of Science Program in Architecture for the Sustainability Design

2021-2022



**Tiny House as a Public Policy Tool for Urban Housing Emergencies in Turkey**

CANDIDATE

PARLAS Sinem

TUTORS

ARTUSO Mario  
VOGHERA Angioletta

---

## ABSTRACT (EN)

The aim of this thesis is to investigate the possible role of Tiny Houses in housing emergency plans, with reference to the housing problem case in Turkey and in the city of Izmir. Since new approaches to the housing crisis are necessary this study explores how state housing agencies might utilize tiny houses as a primary policy to address major housing emergencies such as high costs and land unavailability. The research analyzes the Tiny Houses movement since the economic crisis that affected the world in 2007-2008 with the definition of the tiny house movement in the literature, which first became widespread in the USA, it continues with research referring to why it is such a popular and convenient housing policy choice. Moreover, already existing case studies are taken into account from other countries in order to find examples of existing initiatives where tiny houses have been strategically used in emergencies. In the end the last section contextualizes the problem in the case of the tiny houses movement in Turkey, both through case study analysis and through the context of the housing primary problem city of Izmir

*Keywords: Housing Emergencies in Turkey, Approaching Tiny House Initiatives on Government Policies, Housing crisis in Izmir*

---

## ABSTRACT (IT)

Questa tesi si pone come obiettivo l'indagine in merito al possibile ruolo delle Tiny Houses nei piani di emergenza abitativa in Turchia, con un particolare riferimento al caso della città di Izmir. Sono qui esaminate le istituzioni nazionali che hanno in carico le politiche di contenimento del problema, ed altresì esplorate le strategie di supporto ai piani di emergenza per l'edilizia residenziale a basso costo. In questo contesto si colloca la ricerca in merito al possibile ruolo che il ricorso alle Tiny Houses può esercitare per affrontare le emergenze abitative, esaminandone i costi e le relazioni con le politiche locali di uso del suolo. La ricerca analizza il movimento delle Tiny Houses a partire dalla crisi economica globale del 2007-2008 e che da allora si è diffuso soprattutto negli Stati Uniti. Sono indagate le ragioni per le quali l'uso di Tiny Houses in situazioni di emergenza possa risultare economicamente conveniente e accettato dalla popolazione, anche mediante l'analisi di casi di studio internazionali da cui si ricavano esperienze e conoscenze utili in merito al ruolo che le Tiny Houses hanno realisticamente rivestito in situazioni di emergenza abitativa. Infine l'ultima parte della tesi contestualizza il problema nel caso del movimento delle Tiny Houses in Turchia attraverso l'analisi di casi di studio specificatamente attuati nel paese e con un riferimento specifico alla città di Izmir, che rientra tra le aree urbane con la maggiore emergenza abitativa.

# Contents

Introduction .....	8
Aim and Research Questions .....	10
Methodology .....	11
Limit of the Research .....	13
Structure of the Thesis .....	14
 <b>Part I Housing Emergencies and Local Institutional Policies in Turkey</b>	
Literature Review .....	18
 <b>1.1 Turkish Housing Problem Main Overview .....</b>	<b>20</b>
1.1.1 Urbanization and Housing Emergency in Turkey .....	21
1.1.2 Main issues: Squatter, Housing, Zoning amnesties .....	22
Conclusion .....	33
 <b>1.2 The Governmental Institution: TOKI .....</b>	<b>34</b>
1.2.1 What TOKI is and Main Institutional Roles .....	34
1.2.2 Main Policies on Housing Program .....	35
1.2.3 Housing Affordability in Turkey .....	40
Conclusion .....	42
 <b>1.3 The Real Estate Market in Turkey .....</b>	<b>44</b>
1.3.1 Overlook About Real Estate .....	44
1.3.2 The Global Financial Crisis and the Housing Market in Turkey .....	46
1.3.3 The primary Mortgage Market .....	47
Conclusion .....	49
 <b>1.4 Izmir, Main Overview, Urbanization, and Housing Issues .....</b>	<b>50</b>
1.4.1 Izmir's Main Overviews .....	50
1.4.2 Urbanization Process of Izmir .....	53
1.4.3 The Housing Emergency in Izmir .....	57
1.4.4 Residential Property Prices a Prior Emergency .....	60
Conclusion .....	64



## Part 2 The Tiny House Movement

Literature Review .....	67
2.1 Definition of the Tiny House .....	68
2.1.1 Tiny Homes on Wheels (THOWs) .....	71
2.1.2 Accessory Dwelling Units (ADUs) .....	72
2.1.3 Mobility .....	73
2.1.4 Tiny House Movement .....	75
2.1.5 History of the Tiny House Movement .....	77
2.1.6 Present Situation of the Tiny House .....	79
Conclusion .....	81
2.2 Motivations .....	82
2.2.1 Simple Living .....	83
2.2.2 Freedom & Autonomy .....	84
2.2.3 Sustainability & Environment .....	85
2.2.4 Building & Design .....	86
2.2.5 Economic Factors .....	88
Conclusion .....	89
2.3 Challenges .....	90
2.3.1 Legal Barriers .....	90
2.3.2 Role of the Government .....	92
2.3.3 Tiny House Appendix Q International Residential Code .....	93
2.3.4 Financial Barriers .....	95

<b>Part 3 Tiny House as Possible Policy Strategy to Address Housing Emergencies: International Cases</b>	<b>97</b>
<b>3.1 Micro Villages</b>	<b>101</b>
<b>3.2 Housing Crash Builds a Tiny Community</b>	<b>103</b>
<b>3.3 Housing Crisis and Housing Emergency in USA</b>	<b>104</b>
3.3.1 Motives for Americans	106
Case Studies 1- Beloved Community Village, Denver CO	108
Case Study 2-Boneyard Studio, Washington DC	110
Case Study 3- First Community Village-Austin, Texas	112
Case Study4-Tiny House Village in Albuquerque	114
3.3.2 Conclusioun	123
<b>3.4 Housing Crisis in Netherland</b>	<b>126</b>
3.4.1 Motives for Dutch	128
Case Study 5- BOUWEXPO Tiny Housing	130
Case Study 6 Tiny Village Kleinhuisen	133
Case study 7-Tiny House Nijerk	135
3.4.2 Conclusion	137
<b>3.5 Housing Crisis in Australia</b>	<b>138</b>
3.5.1 Motives for Australian	139
Case Study 8-Tiny House Plot Project Gosford	140
Case Study 9- Launch-Harris Transportable Housing Project	142
3.5.2 Conclusion	144
<b>3.6 International Case Studies Conclusion on Urban Issues</b>	<b>146</b>

<b>Part 4 Tiny House as Possible Policy Strategy to Address Housing Emergencies in Turkey/Izmir</b>	<b>149</b>
<b>4.1 Housing Crisis and Housing Emergency in Turkey</b>	<b>150</b>
4.1.1 Homeownership in Turkey	152
4.1.2 Tenant Rate in Turkey	154
4.1.3 Average People per Household	154
4.1.4 The Context for Issues of Homelessness	155
<b>4.2 Tiny House Movement in Turkey</b>	<b>157</b>
4.2.1 Legal Requirements for Tiny House in Turkey	159
<b>4.3 Case Studies in Turkey</b>	<b>160</b>
Case Study 10- Mandarin Tiny house in Bodrum, Turkey	160
Case Study 11- Togbag Tiny House Village in Urla/Izmir,Turkey	162
Case Study 12- Vagoon House Alaçatı/Izmir,Turkey	165
4.3.1 Conclusion	167
<b>4.4 The City of Izmir's Overview</b>	<b>168</b>
4.4.1 The Housing Problem and Emergencies in Izmir	170
4.4.2 The Izmir City and Natural Hazards (Earthquake) Risk	172
<b>4.5 Conclusion</b>	<b>176</b>
4.5.1 Discussion and Suggestion	182
4.5.2 Interview: Findings and Result	184
4.5.3 Future Research	186
<b>Bibliography</b>	<b>188</b>
<b>Sitography</b>	<b>196</b>

---

## Introduction

The housing problem comes from many features from different times of urbanization. While the housing problem is often the housing deficit problem at the beginning of the urbanization process, in nations that have completed the urbanization process, qualitative issues are brought to the forefront rather than quantitative difficulties (Sarı, 2015).

The housing bubble in the United States deflated in late 2007 and early 2008, resulting in subprime mortgage crises and a decline in the US economy. Then it affected the entire global economy, resulting in a global recession known as the Global Recession or the Global Financial Crisis of 2007–2008 (Yıldırım, 2010). Wherever there are financial crises, they frequently cause massive shocks and negative consequences. The root causes of this type of housing crisis are still unknown. Financial crises frequently cause massive shocks and negative consequences wherever they occur. The underlying causes of this type of housing crisis completely remain unknown.

Such inquiries highlight differences in the housing sector, as people who previously saw their homes as a safe investment suddenly found themselves on the streets, having lost their house, financial security, and faith in the financial system (Kenaga 2012). People who were homeless and dissatisfied with the modern mortgage system began to consider tiny houses as an alternative. While tiny houses had been around for a few years, the academic literature frequently attributes the tiny house movement to the 2008 housing crisis and the subsequent economic recession (Carras 2019; Mangold & Zschau 2019; Mutter 2013). People desired secure housing without reliance on mortgages (Saxton 2019), and because the size of a house is one of the most important cost factors, going small made a lot of sense.

The global crisis that shocked in 2008 was primarily a real sector crisis, accompanied by a direct decline in economic productivity and employment in Turkey. Housing prices, which influence economic activity, can have a direct impact on real estate loan demand, which can be used as collateral for mortgage financing in the housing and loan markets.

---

In addition, earthquakes and squatting have had an impact on the housing sector; for houses that do not have fixed permits or building permits, as well as corruption in the construction sector due to a lack of auditing, inspections have been subject to tempered debates. The Turkish financial crisis, as well as the global financial crisis in 2008, demonstrated that the mortgage system can be quite vulnerable to the current situation, as households may be unable to pay mortgage loans (Coşkun, 2011).

Another important factor influencing the housing market is cultural transformation. The increased rate of urbanization, as well as the rapid growth of the population, widened the housing gap. Families are more likely to split up; young members leave their families at a young age (for personal independence, schooling, or work), and thus the demand for housing is increasing (Farzat, 2020). Although the supply of housing in Istanbul and the coastal cities has exceeded a certain threshold, there is a shortage in the other rapidly growing cities.

According to Central Bank data, house prices in Turkey increased by 96.4 percent year on year in February 2022, with new build properties increasing by 102%. During the same time period, housing prices in Istanbul increased by 104%, with increases greater than 100% in Istanbul, Ankara, and Izmir. The price increase has been fueled by a supply constraint caused by rising construction costs, which have slowed house investments, as well as strong demand from wealthy buyers looking to protect their funds from inflation and the drop in the value of their investments. With rising housing prices, natural disasters such as the earthquake, and finally the pandemic (Covid-19) affecting the whole world, minimalist and ecological lifestyle has become more popular in Turkey, and the concept of the tiny house has begun to spread rapidly. Tiny houses, as a type of housing, have shown a significant amount of potential in dealing with modern housing issues. When compared to regular-sized homes, the petite size of tiny houses means less material use and cost during construction, less land being seized for the house, and overall lower and more affordable living costs (Olsson, 2020). People began to look for alternative housing options and trends in Tiny houses, particularly in areas where there is a housing crisis or emergency.

---

## Aim and Research Questions

The research's initial statement refers to the housing crisis, which is a major and growing issue in Turkey today. Many Turkish provinces should consider housing needs. Population growth, rural-urban migration, economic factors, and earthquake risks are the primary causes of modern housing problems in Turkey, where an increasing number of people face access challenges. In the first part of the thesis, the research refers to the need for low-cost housing accessible to the - ever-growing - most socially and economically disadvantaged segments of the population, and the National Agencies and policies are studied and examined as the main issues.

It is necessary to specify how these institutions and policies serve as the central point of reference for addressing the housing problem. In light of these statements ( that are the first part of the thesis) the research deep its interest in the detail and possible role that the tiny house movement could exercise to address these problems, with emergency interventions but structured in an effective and coordinated way with local institutions. The questions from which this detailed topic is addressed can be summarized as follows:

- Can the use of Tiny Houses in a structured way be a useful tool for emergency situations? What are the findings from international and national cases?
- Can tiny house initiatives could contribute (albeit on a very small scale and subordinate to national policies) to addressing housing emergencies for low incomes groups?
- Do the above approaches can be implemented in the Izmir case study? The city of Izmir investigated according to statistical reports has the highest Housing Price Index.

---

These questions, therefore, constitute the contents of the second, third and fourth parts of the following chapters. The work had been done through a scientific survey in the scientific literature as well as in the study of similar international cases literature as well as with direct surveys of public officers in Izmir city. The research results are aimed at the expected results in the conclusions.

## **Methodology**

### **Qualitative Research**

A comparative case study is used as a qualitative research method in this thesis. Qualitative research gives in-depth, holistic descriptions that seek to capture the social world's interactive, interpretive, contextual, and multifaceted nature. Because the purpose of this study is to gain a greater understanding of many tiny home initiatives, the urban planning concerns they address, their residents, their motives, and their relationship with the government, qualitative research is an appropriate research approach to apply. Because the tiny house is a relatively new concept with little literature on it, qualitative research is a useful way to get answers in an approach known (Yin, 2003).

A comparative case study can be used to thoroughly examine and learn about many cases. After doing a comparative qualitative case study, findings of differences and similarities between groups can be reached; however, causal explanations cannot be implied. A comparative qualitative case research design is excellent for this thesis because it allows us to gain deeper insights into tiny house instances in the Netherlands, the United States, and Australia and compare them. However, the final part is addressed as a case study in Turkey.

---

After looking at other nations' examples and scholarly literature, we can see that there is still a lot of information missing about the tiny house in Turkey.

During this research, a phenomenological approach was used to determine why and how tiny houses could relieve the housing market by examining the various actors' perceptions. The method is based on the notion that reality is produced by people's thoughts and how they act in response to their perceptions, emphasizing the subjectivity of their experience (Gray, 2014).

This qualitative study approach is founded on the notion that the tiny house may be rejected or accepted as a housing crisis answer dependent on the actor's perception of it, even if it is deemed a good alternative.

## **Data Collection**

### **Semi-Structured Interview**

A semi-structured interview is the most effective method for understanding others and accessing people's interpretations and perspectives of a situation (Punch, 2014). Semi-structured interviews are those in which self-consciousness, partial structuration, and order play an important role. This also means that the questions are supposed to be open-ended, allowing participants to completely respond to the question. The open-ended questions also give interviewees the opportunity to expound on issues that were not covered in the literature study. These features guarantee adaptability in a guided dialogue. Finally, semi-structured interviews provide insights into subjectivity, politics, and power, all of which are highly important to this thesis, especially given the focus on the role of local government.



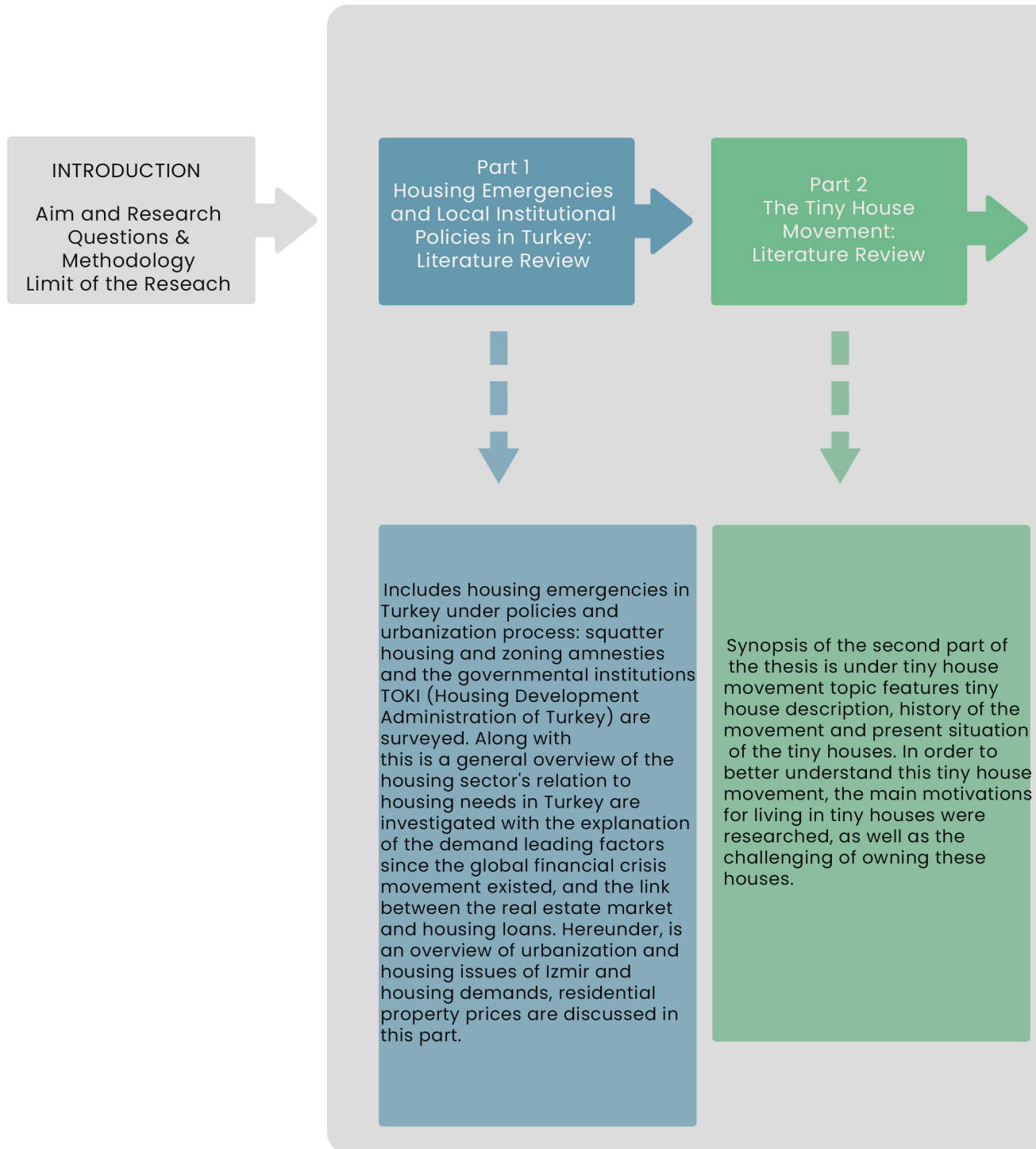
---

The interview was conducted through e-mail with the city planning department of the Izmir metropolitan municipality in July 2022, and the language of correspondence was Turkish. The respondent presented a clear image of the role of local and national government in the tiny house initiative by asking these questions. The fact that the respondent was in the city planning department of the Izmir metropolitan municipality and answered the research questions, aspects that cannot be found online or printed anywhere, was a significant aspect of the interview. Knowing how local governments operate is useful in answering the main research topic.

### **Limit of the Research**

Individuals and communities from all over the world are part of the tiny housing movement. Not all of them can be examined for the purposes of this study. Instead, this study will use surveying as a methodology to investigate housing crises in the United States, the Netherlands, and Australia, which are the pioneers of the tiny house movement, as well as the motivations of the society living in these principles to want to live in a tiny house. These are investigated in this context. Furthermore, it is critical to recognize that the scope of this paper is limited. Tiny Houses TV shows and YouTube channels have made tiny houses very popular today. There are numerous websites and YouTube channels dedicated to building one, including the most popular 'Living Big In A Tiny House' and 'Tiny House Expedition.' There are also an increasing number of companies that build and sell tiny houses or assist with self-construction by providing plans and/or building kits. However, the tiny house is limited in some subjects in the literature, including the history of the movement, ecological approaches, and the definition of the tiny house, but the research is limited. There are no literature studies on the role of tiny houses and their possible support of housing emergency plans regarding the housing problem with reference to the case of Turkey and, in particular, the city of Izmir.

## Structure of the Thesis



Part 3  
Tiny House as Possible  
Policy Strategy to  
Address Housing  
Emergencies:  
International Cases

Part 4  
Tiny House as Possible  
Policy Strategy to  
Address Housing  
Emergencies in  
Turkey/Izmir

CONCLUSION

Discussion and Suggestion  
Interview: Findings and  
Result  
Future Research

Before examining the third part includes tiny houses as a possible policy strategy to address housing emergencies. In international case studies, the concepts of tiny house Village and Community were analyzed as a methodology. And cases in the tiny house village concept in the USA, Netherlands, and Australia, which are known to be pioneers in the world tiny house, are chosen for examination. Concurrently, the housing crisis and emergency needs of each country are ignored and the motivations for living in these houses are included.

The last part analyzes tiny houses as a possible policy strategy to address housing emergencies in Turkey/Izmir. As in international case studies, first of all, the determining factor in order to understand the housing crisis and emergency situation of the country. In this context, is possible to dwell on earthquake and homelessness issues because permanent and non-permanent tiny house communities have been observed to be formed in countries experiencing these difficulties, as seen in international case studies. This part was to understand what strategies tiny housing businesses could address in both Turkey and Izmir. In order to strengthen this narrative, an interview with the Izmir municipality city planning unit is included.





Figure 1. Izmir, Bayraklı Source: (Pinterest, 2022)



## **PART 1 HOUSING EMERGENCIES AND LOCAL INSTITUTIONAL POLICIES IN TURKEY**

---

---

## Literature Review: Housing Emergencies and Local Institutional Policies in Turkey

The literature involves the key 2 parts (Housing emergencies in Turkey and local institutional policies, Izmir, main overview, urbanization, and housing issues) which provided this research with a conceptual field review. After the first part of the thesis, the second literature review examined the tiny house movement.

Majorly, as in the first topic of the thesis, the problem of urbanization and insufficient housing is seen in developing countries where the urban population is rapidly increasing. The urbanization process can also be defined as a process of internal migration and population accumulation, and it is also parallel to economic development (Keleş, 2015). It was also examined in (Ahsan & Sadak, 2021) academic article that the population density of the urbanization process is an important factor. According to (TURKSTAT, 2022) data, the population of Turkey is stated to be 84 million. In order to understand the current housing problem in Turkey, the urbanization process is also examined. From another perspective, the issue of the housing problem in Turkey is discussed with regard to squatter and zoning amnesties (Genç, 2014) divides the urbanization in Turkey into periods as parallel to the changes from the squatter housing policies to urban transformation policies: before the planning period (1945–1960), after the planning period (1960–1980), after the 1980s, the 2000s, and lastly the period defined by the policies under the Municipality Law (no. 5393) and the Redevelopment of Areas under Disaster Risk Law (no. 6306) (Genç, 2014 ). The need for housing led people to live in slums, the majority were in illegal status. Since the 2000s, the problem has been put as low-quality houses, rather than the supply shortage. People were forced to live in slums due to a lack of housing, with most of them being illegal immigrants. The Housing Development Administration of Turkey (TOKİ) has concentrated on the housing supply for the middle- and low-income groups. After the 2000s, the problem was attributed to low-quality housing rather than a lack of supply. TOKİ (Turkey Housing Development Administration) has focused on housing provision for the middle- and low-income categories (Ekmekeçi, 2021).

---

Whether the social housing produced by Housing Development Administration is sufficient for Turkey,(Devrim, 2016) Turkish big cities, TOKI has recently produced similar low-cost products as a design tool for government profile profit architecture and urbanism and it has undertaken new tasks from producing profit-oriented projects to preserve the historical texture and it has been discussed that it has the authority to make mass housing production. Also analyzed the dynamics of the housing problem in Turkey's economy and examined the impact of variables related to housing prices. According to much research, the global financial crisis of 2007-2008 impacted many countries with housing problems in both the financial and real estate sectors. Its impacts spread around the world via many infectious mechanisms. Turkey is one of the countries that has suffered greatly. The real asset price index also corresponds with the country's overall economic performance and the GDP (GDP). The effects of changes in the country's GDP have a substantial impact on this industry as well (Farzat, 2020). Additionally, in countries where mortgage finance is not available, housing, and real estate development are constructed in stages (Coşkun, 2011). Housing affordability conditions have also deteriorated, and the burden of high housing costs has squeezed household budgets as livelihoods decrease and time spent at home increases during quarantines. In the case of Turkey, a severe economic crisis in 2018/19 preceded the Covid-19 pandemic. Housing production, housing prices, and the unemployment rate have been affected much more by the economic crisis than by the pandemic. In addition, during the economic crisis, housing prices were accompanied by rising inflation rates and an unstable Turkish lira. It creates a significant constraint on housing production. In addition, the inadequacy of housing loans, increasing homelessness with unemployment, problems in income distribution, and per capita income are other factors( A. Khurami & S. Özdemir, 2022).

The last part, a reflection on the housing problem in the İzmir case (Uysal, 2019) housing production in the last thirty years, and the housing problem of İzmir were the subject of the study of the urbanization process in İzmir. The 2000s since stand out as the years when the demands of the housing price and economic policies and the new capital accumulation regime were felt strongly in İzmir. According to the ENDEKSA and in the Knight Frank Global Residential Cities INDEX, Q2 2021, (Knight, 2021) report showed the current housing market of İzmir.

---

---

## 1.1 Turkish Housing Problem and Main Overview

Urbanization and inadequate housing are the major issues in developing countries where the urban population is rapidly increasing. According to Keleş, the urbanization movement should be defined as a process of population accumulation that results in an increasing degree of organization, division of labor, and specialization, way that results in an increase in the number of cities and the growth of cities in parallel with economic development (Keleş, 2014). Changes in behavior and interpersonal relationships, and changes in a society's economic, political, social, and cultural structures cause and shape urbanization. All changes in the economy, political field, and social and cultural life are reflected in urbanization, and thus in people's settlement, spatial arrangements, and social lives.

The main reasons for the emergence of housing problems are population growth, rural to urban migration, and inadequate housing. Unplanned urbanization is a housing problem as well as an underdevelopment situation. In capitalist societies, the urban structure has different class distinctions including the poor, middle class, and wealthy people, and urbanization is often irregular and unplanned. Since housing is seen as a consumer good in these societies, it is very difficult for poor families to own a house for shelter or to rent a house that fits their budget. For this reason, the settlements where people meet their housing needs with their own means are spread over wide areas, and unplanned urbanization has emerged in countries where there is rapid urbanization and where there is no adequate and affordable housing stock (Kaya, 2020).

Moreover, the housing problem in Turkey is not only a shelter but also It is accepted as social security, a shelter in the face of economic crises, an investment and a means of earning rent, and an indicator of social status is being done. This situation increases the importance of the housing problem. First, the housing problem in Turkey is not a production problem. Despite adequate housing production, the high number of tenants and the existence of slum areas bring up the sharing dimension of the problem. At the root of the housing problem in Turkey lies the economic difficulties in acquiring housing for the lower and middle classes, who constitute a large part of the society. There is no consistent and long-term applied social housing policy for these classes in Turkey.



---

### 1.1.1 Urbanization and Housing Emergency in Turkey

One of the most important factors urbanization of the process is population density. Along with the first population census in 1927 during the Republican era in Turkey, an estimated total of 13,648,270 people live in villages and suburbs, 75.8 % in provincial and district centers, and 24.2 % in provincial and district centers. After the Second World War, when industrialization began to accelerate in the 1950s, people started to migrate to cities, and the impact of globalization speeded up after 1980 because of large-scale real estate and infrastructure developments, as well as other socioeconomic and environmental developments (Ahsan & Sadak, 2021).

Parallel to this, a significant change has been observed in the increase in value arising from the taxation of wealth in the financing of public investments, real estate development, real estate investments and financing, urban transformation, urban development, public administration, and policies (Ahsan & Sadak, 2021).

In March 2013, the number of municipalities increased from 16 to 30 with some legislative changes regarding the establishment of 16 metropolitan municipalities in 16 provinces and 26 districts. Thus, all the villages (cities) within the boundaries of the metropolitan city were transformed into municipalities. neighborhoods and with this legal change; The total population of metropolitan cities is considered the urban population.

According to TURKSTAT's data of December 31, 2022, Turkey's population is estimated to be 84,680,273 people, with 50.1 % being men and 49.9 % being women. The rate of urbanization is the main indicator of demographic change in Turkey. In 1927, for example, 75.8 % of the population lived in rural areas and 24.2 % in urban areas, but this ratio has now sharply reversed. In 2019, 92.3% of the population lives in provincial and district centers (urban areas), while only 7.7 % lives in rural settlements. (Fig 2). The most important and dominant feature of the country's population is youth and youth. The 0–14 age group made up 23.1 % population, the 15–65 age group comprised 67.8 %, and the elderly population (66 years and older) thought up 9.1 %, with the average life expectancy increasing with time (Ahsan & Sadak, 2021).

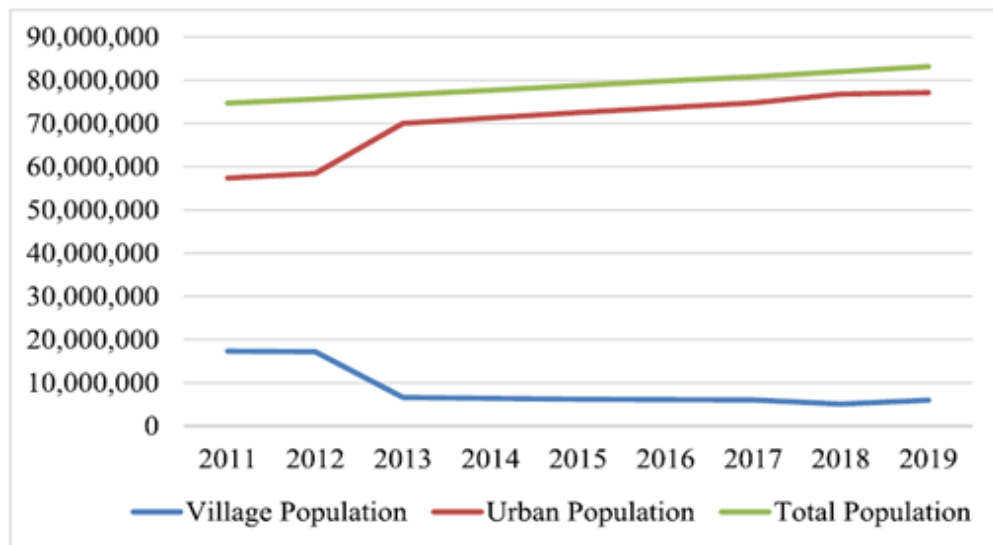


Figure 2. Growth of urban and rural population in Turkey. Source: (TURKSTAT, 2020a)

City and urbanization definitions only regulations in the Turkish legal system demonstrate major gaps in the definition of urbanization. Because the definition is determined by laws, the phenomena of urbanization have social, economic, demographic, and physical repercussions. Slum settlement growth has always been a structural concern in tandem with the rapid growth and development of cities and the constant increase in population.

### 1.1.2 Main Issues: Squatter, Housing, Zoning Amnesties

The housing question in Turkey is first explored with a special emphasis on squatter housing. Squatter housing is defined as informal and illegal housing that is built on public lands, on privately owned lands belonging to someone else, or on lands owned with shared title or built without construction permission. However, due to policies and amnesty laws that aim to legally formalize squatter housing, these areas cannot be defined as illegal. (Demirtas-Milz, 2013) argues that squatter housing areas are rather examples of informal spaces. Because squatter housing is not the only kind of “illegal housing”, the dualism between the informal and the formal must be questioned, as well. The first squatter housing movement in Turkey appeared in Ankara in the 1930s.

---

In the early republican era, squatter housing emerged as a form of housing for those who migrate from rural to urban areas because of industrialization and economic growth (Genç, 2014). Following the Second World War, some policies aimed to provide housing for the low-income through tax, credit, and land allocation. The main issue was to protect the political system and regulate the illegal structures according to legislation.

According to Genç, there were three important points standing out in terms of squatter housing policies: preventing the construction of the squatters by allocating the public land to citizens, the idea of preventing squatters by prohibitions, and the legalization of the squatters (Genç, 2014).

Rapid internal migration, cheap labor, and industrialization contributed to the establishment of squatter housing areas on urban property by the 1950s (Özdemir, 2010). Between 1950 and 1955, 50.000 squatter houses were built in Turkey, with squatter housing accounting for 36% of total housing. The number of squatters reached 240.000 in one decade, between the 1950s and the 1960s. Economic expansion and industrialization programs, as well as the development of the industrial city, was prioritized during this decade. As a result, during the 1950s, migration from rural to urban areas surged, resulting in Turkey's fast urbanization. Rural areas were absorbed into urban areas. Due to a shortage of infrastructure in cities, people migrating from rural to urban areas satisfied their housing needs by building squatter homes in the treasury or on private land on the urban periphery (Ataöv & Osmay, 2007). The earliest and most widespread belief about the squatting process during these years was that squatter housing was a legitimate solution because it was placed on public land and did not directly violate someone else's property rights.

The second point of view is that existing houses should not be demolished until there is a specific amount of housing supply and that the distribution of title deeds to squatter housing dwellers is incorrect. Long-term land renting was suggested instead of unrequited title deed distribution because transformation programs may be implemented to squatter housing areas. The Turkey Republic's planned growth period begins in the 1960s. Local governments, on the other hand, have begun to play a role in resolving urbanization issues.

---

For a time after the transition to a planned economy, the import substitution model was used. The neoclassical economic strategy was embraced as the internal market expanded (Ataöv & Osmay, 2007). Since the early 1960s, the government has identified squatter housing as an issue within the socio-economic development framework in five-year development plans (Ataöv & Osmay, 2007). The first five-year development plan's major goal was to improve the physical conditions of squatter homes. The first plan prevented the development of additional squatter houses (Genç, 2014). The first goal of the second plan, which was implemented between 1967 and 1972, was to prevent squatter housing. It could not be accomplished because it also planned to gain from the labor of squatter housing inhabitants in housing construction activities (Genç, 2014). Squatter houses numbered 90.000 in Ankara in 1965 and 18.025 in Izmir in 1963. In the 1960s, around 3 million people moved from rural to urban settings. The number of squatter residences in major cities increased from 240.000 to 430.000 during this time period.

Throughout the 1960s, the squatter housing clusters of the 1950s were transformed into neighborhoods and integrated into cities. Squatter housing also became a commercial tool during this time period. Meanwhile, in the 1960s, the economic structure of the inhabitants of squatter houses was changing in response to labor market demand. Residents of squatter houses began to build and rent out extra floors or rooms. Squatter housing has profited from infrastructure amenities as it has fed the labor market and transformed into settled areas (Özdemir, 2010). The main realities of this period were that people who relocated from rural to urban areas provided labor for the increasing economy while also contributing to economic growth as consumers. The 1966 Squatter Housing Law (no. 775) was enacted to create a legal foundation for the legality and commercialization of existing illegal housing. With the commercialization of squatter housing, the "build and sell" strategy became the primary source of housing for middle-income groups.

---

This approach resulted in the formation of small and medium-sized construction investors. The Condominium Law (no. 634), passed in 1965, was the second cornerstone of this housing provision period, which became prominent by the 1970s. Changes in supply and demand balances generated a new term in the housing industry by the end of the 1960s, which was largely controlled by neoliberal policies and urban renewal (Özdemir, 2010).

Following the global economic crises of the 1970s, new political and economic approaches emerged. The state's response to squatter houses changed dramatically as a result of neoliberal policies. With the neoliberal ideology, the development of profit-oriented activities and globalization policies resulted in the redefinition of squatter areas. Neoliberal policies have had a variety of effects on squatter communities. Residents of squatter homes were not subject to state intervention. Residents lose their living spaces due to demolitions because squatter housing zones are categorized as urban investment areas. Finally, as development partners, some squatter homeowners are integrated into the regeneration initiatives (Erman, 2016).

Squatter housing eventually got more commercialized with renting and evolved into an investment strategy in the 1970s. Different scaled contractors entered the market, and profit-oriented squatter transformations increased. Some squatter housings from this era were transformed into individual houses and multistory apartments by small and medium-sized enterprises. Some of them were converted into mass housing through co-operatives with the assistance of professional groups or banks. The legalization of squatter housing and its transformation into a commercial instrument had an impact on the period's socioeconomic structure. The organized building of squatter houses resulted in an increase of either individual and illegal organizations or rental property owners among squatters (Ataöv & Osmay, 2007).

---

The year 1980 was a turning point in economic and political history. The central government employed neoliberal economic policies and structural reforms to integrate Turkey into international markets following the military coup on September 12, 1980. With the advent of the entrepreneurial municipal model, local governments grew financially stronger. Priorities in urbanization and planning were redefined, and investments were pushed more toward infrastructure, which had been neglected in cities for so long (Waite, 2016). The military administration determined the 1980s' urban and housing policy for the first three years, followed by the civil government after 1984. Neoliberal policies of the 1980s altered urbanization and housing policy approaches since urban space became a phenomenon in which capital was embedded as a mechanism of rent (Uysal, 2019).

According to the Right to Housing in the 1982 Constitution, the framework of housing strategies is as follows: "The government takes measures to meet housing needs and supports mass housing undertakings in a planning framework that monitors the characteristics and environmental conditions of the cities" (Constitution of the Republic of Turkey in 1982). (Tekeli, 2009) distinguishes two types of housing provision in the 1980s: housing in zoned urban areas, which includes individual housing production, cooperative housing production, the build and sell method, mass housing production, housing production by housing cooperatives, and local government partnerships, and squatter housing, which includes individual squatter housing production and semi-organized squatter housing production.

In the 1980s, zoning amnesties were used as a strategy for urban growth. The first Zoning Amnesty Law (no. 2805) was passed during the military regime in 1983. This law required the demolition of illegally constructed structures. In 1984, the second Zoning Amnesty Law (no. 2981) was passed. It legalized existing squatter housing, and the government officially offered squatter housing owners title deeds. The third Zoning Amnesty Law (no. 3290), passed in 1986, allowed squatter housing dwellers to obtain title deeds.

In Turkey, in the 1980s, the idea of transformation began to emerge in the urban areas where settlement was distorted. In 1984, with the Law No. 2981 on "Some Actions to be Applied to Buildings Contrary to the Zoning and Slum Legislation and Amending an Article of the Zoning Law No. 6785", it was tried to accelerate the slum transformation stages. Although it was possible to create improvement plans for slum areas with the said law, the urban transformations that were made as a result remained in physical transformation. At the end of the 1980s, it was seen that urban transformation projects started to be on the agenda of the municipalities along with the improvement development plans (Turan, 2020). The development of urban transformation is shown in (figure 3).

PERIOD POLICY TYPE	1950s Reconstruction	1960s Reanimation	1970s Renewal	1980s Redevelopment	1990s Reproduction
Basic Strategy and Direction	Reconstruction, expansion and growth of suburbs, often based on a master plan, of run-down areas of cities	Continuing the understanding of the 1950s, the growth of the suburbs	Concentration and development in renovation and neighborhood projects	many basic development and redevelopment projects, extra-urban projects	A move towards more comprehensive approaches in policy and practice
Main Actors and Finance Holders	Central and local government, private sector initiatives and contractors	To balance the public and private sectors	Increasing role of the private sector and decentralization of local governments	Increasing emphasis on the private sector and specialized units.	Domination of partnerships
Spatial Dimension of Action	Emphasis on local and local level	The emergence of the regional level in actions	First the regional and local level, then the prominence of the local level	Concentration on a local scale in the early 1980	re-presentation of strategic perspectives development of regional actions
Economic Focus	A trace of private sector investment, mostly public sector investment	The increasing importance of the private sector in the continuation of the 1950s	Mandatory public resources and increase in private investments	Dominance of the private sector with selective public funds	Increasing balance between public private sector and voluntary funds
Social Content	Improvement of housing and living standards	Improving social conditions and well-being	Community-based actions and increased powers	Society to see its own business with selective government support	The importance of the role of society
Physical State	The re-importance of inner regions and close environment developments	1950s improvement of existing areas	Extensive regeneration of run-down urban areas	Preparation of replacement and new development projects	More modest protection in the 1980s

*Figure 3. Development of Urban Transformation Source: Turan, 2020  
Illustrated by Author*

---

During the construction boom, the legal regulations on urban transformation created a new type of deregulation in urban planning. Some legal arrangements have been made to allow local governments and the HDA to develop urban transformation projects. In recent legislation, urban transformation in Turkey refers to market-oriented and profit-oriented investment in the city's attractive points through building renovation and physical activities. However, there is a lack of regulations on urban planning and heritage protection in transformation projects. Many local governments have initiated urban renewal projects on greenfields and squatter areas based on the most recent urban transformation laws.

#### Laws on housing in Turkey and Zoning Amnesty

- No. 634 The Condominium Law (1965)

- *Unauthorized structures within the municipality's borders have been legalized by this law.*
- *The law aimed to transfer treasury lands to municipalities in interaction for a fair price, thereby preparing a planned land for unauthorized structures.*

- No. 2805 The First Zoning Amnesty Law (1983)

- *This law aims to categorize slums as preserved, reclaimed, or demolished.*
- *Municipalities will classify, determine, assess, and perform other slum-related operations within the boundaries of municipa and contiguous areas.*
- *The governorships will be in charge of slum classification, determination, assessment, and other operations outside of municipal and contiguous areas.*



- 
- No . 2981 The Second Zoning Amnesty Law (1984)

- *In Law No. 2981, the scope of the slum amnesty was expanded even further.*
- *This law applied to slums that had previously served as housing but had since been converted into workplaces.*

- No . 3290 The Third Zoning Amnesty Law (1986)

- *This law further expanded the scope of the slum amnesty in Law No. 2981.*
- *Slums that were previously used as housing and then turned into workplaces were included in the scope of this law*

- No. 2985 The Mass Housing Law (1984)

- *Aims as to evaluate the interaction between urbanization and industrialization, minimize the differences in socioeconomic development between various regions, and prevent the adverse situations causing urban concentrations.*

- No. 6306 Under Disaster Risk Law (2012)

- *Condominium ownership cannot be established by changing the type of buildings, which are defined as risky buildings within the scope of the law and have been decided to be demolished by placing an annotation, even if a building registration certificate is obtained.*

---

In the previous and following years, zoning amnesties were carried out with the laws enacted in order to provide the necessary regulations for the phenomenon of slums and with the special judgments in some laws.

The Housing Development Administration (HDA) was established in 1984 with the aim of limiting rapid and unplanned urbanization. The Mass Housing Law (No. 2985) established a mass housing fund the same year. Although the creation of the Housing Development Administration and its own fund was an attempt by the central government to subsidize housing, various problems emerged during implementation in terms of building periods, expenses, and occupancy (Özdemir, 2010). The Housing Administration (HDA) which is underlined as an institution will be examined in detail in 1.2 paragraphs. The state's housing output is discussed in depth in the next section. Until the 1990s, housing production in Turkey was characterized by short-term gains and long-term expenses. Individual builders, small and medium-sized construction enterprises, local governments, and the federal government were the housing actors throughout this time period.

The most prominent urban development model of the 1990s was urban redevelopment programs that prioritized productivity, profit, and privatization (Demirtas-Milz, 2013). In addition, the 1990s saw considerable changes in the urban landscape. Large corporate centers in the form of skyscrapers, luxury housing, and mass housing areas have been erected in city centers to meet the needs of the upper-income group. To address the housing needs of the middle-income group, mass housing was built in areas created by the transformation of squatter dwelling sites on the outskirts. As a result, the displaced and excluded residents of squatter housings continued to create new squatter housings in other regions. Private investors dominate the housing production sector, which became market-driven in the 2000s.

---

The major mechanisms of neoliberal urbanism are urban transformation programs. The neoliberal model significantly changed the regulation of Turkey's urban and housing markets. Conversely, speculative urbanization became prevalent in housing policies.

Legislative arrangements and adjustments were implemented in order to build luxury housing projects or urban transformation initiatives, as well as to develop new areas with high urban rents. Gated communities, condominiums, and skyscrapers were the most visible examples of neoliberal urban policy. In the 2000s, Turkey produced a significant number of buildings. However, no professional services, monitoring, or public input were provided during the planning and production process (Waite, 2016). As a result, the emerging housing stock is unsustainable from a social, economic, and environmental standpoint. In the 2010s, this process became increasingly obvious.

In terms of housing production, the key tool of the 2010s was the Redevelopment of Areas Under Disaster Risk Law (no. 6306). This law went into force on May 16, 2012. Its purpose is to establish procedures and principles for the rehabilitation and renewal of disaster-prone lands or plots with disaster-prone structures in order to provide healthy and safe living conditions. This law uses an urban transformation to transfer land from squatter housing areas to the state and to convert informal urban residential areas into publicly regulated marketable assets. Legal uncertainty and tactical maneuverings by private and public parties are also employed to hasten the transfer of squatter properties (Atasoy, 2016). Squatter-housing areas, for example, are one of the goals of urban transformation efforts, with residents primarily benefiting from an unregulated land market and incompletely commodified housing rights. These locations are essential for real estate investments since they are surrounded by high-rent neighborhoods and are vulnerable to rent disparities.

---

This condition resulted in social fragmentation or/and social, spatial, and economic pressure on the poor. With the urban transformation programs, high-income people began to have greater living standards with the creation of luxury houses (Eroğlu, 2019).

The market mechanism is seen in many examples in Turkey. The re-establishment of institutional structures such as new laws becomes more dominant than in previous periods with regulations had come capitalist production processes and market-centered growth and development goals of a wide range of problem areas in terms of urban justice caused to occur. In the last period of the 1970s, after 1980, the globalization process and neo-liberal policies resulted in the formation of many problem areas in cities (Sönmez, 2012). Some of these problems are despite the increase in the incomes of the upper and middle-income groups, the lower income. The declining incomes of the groups resulted in the polarization of class distinctions.

According to Özbek Sönmez, another problem is an urban transformation and renewal initiatives founded on urban rent areas result in commercialization and exclusion because the poor are inevitably displaced and excluded through dispossession (Sönmez, 2012).

On the other hand, the poor were moved to Housing Development Administration-built mass housing in the periphery or to dwell in squatter areas squeezed with luxury houses. In terms of household income, socioeconomic conditions, culture, and desires, a vast disparity between the wealthy and the poor in squatter housing appears (Eroğlu, 2019). The middle classes housing situation in Turkey has changed because of economic shifts and housing production dynamics.

---

## Conclusion

The housing problem in Turkey, the process of housing policy regulation, housing zoning amnesties, and the main housing problem with urbanization processes are all discussed in this chapter. Increasing immigration and population growth in Turkey after the 1950s have negatively affected urbanization and urban development. In the beginning migration from rural to urban areas was initially welcomed and encouraged by the state in order to meet the labor force needs of the industrial sector (Güç, 2017). However, in the meantime, with the increase in the population living in cities, many problems began to be experienced. Housing problems, squatting, adaptation to urban life, increase in crime rates, unplanned urbanization, unemployment, etc. Problems such as these have been the subject of frequent research in social sciences and have been found worth examining. Squatter housing is critical in Turkey's urbanization trend. Squatterization began with rural-to-urban migrations in the first part of the twentieth century. Between 1950 and 1980, the government approached squatter housing as a solution to the middle classes housing crisis. Following the 1980s, privatization, deregulation, and changes in laws and regulations transformed housing into an instrument for capital accumulation. In Turkey, zoning amnesties in the 1980s and urban renewal and urban transformation after the 1990s became neoliberal urbanization strategies (Demirtas-Milz, 2013). Repairing, renewing, and transforming "disaster risk zones" has recently become the foundation of Turkish urbanization. The goal of urban transformation was to make way for high-income developments in high-rent neighborhoods. These initiatives are implemented and authorized through collaboration between the public and private sectors. As a result, housing construction in Turkey results in squeezing the poor and their living areas among high-rent metropolitan areas, a lack of basic needs fulfillment, and marginalization through dispossession.

---

## 1.2 The Governmental Institution: TOKI

### 1.2.1 What is TOKI and Main Institutional Roles

The Housing Development Administration of the Republic of Turkey (TOKI) aims to fundamentally produce solutions to national housing and urbanization problems in Turkey, and it continues its efforts to realize an acceptable quantity of quality housing in the country's healthy urban environment. Because of the existing demand for qualified and affordable houses in numerous places, TOKI has been allocated to focus on developing mass housing projects for the low and middle-income target groups in accordance with Turkish Government Programs and government requirements since 2002. TOKI, with its rapid housing construction processes, aims to meet 5-10% of Turkey's housing needs.

TOKI prioritizes disadvantaged groups in its social housing initiative. The social housing program primarily targets low and middle-income people who cannot afford to acquire a house under current market conditions. The social housing program includes projects for low-income families, middle-income families, and urban transformation projects, as well as housing projects for disaster management and restructuring (TOKI, 2022). Other operations include agricultural village projects, migrant residences, historical-cultural building restoration, cooperative credits, and housing credits for war victims. However, with the housing problem on the agenda, almost all of the mass housing projects implemented for low or middle-income groups in the periphery of the city center in the last period show uniformity in terms of the spatial organization of the units, mass housing projects generate different opinions on them. The housing program will be examined in greater depth under the following heading.

#### Projects of TOKI

- Regeneration and transformation of informal settlements
- Social housing initiatives for middle- and low-income people
- Educational and social amenities
- Reconstruction and disaster relief activities TOKI primarily relief and reconstruction initiatives around the world in collaboration with other international humanitarian organizations

---

## 1.2.2 Main Policies on Housing Program

TOKI's social housing program consists of non-profit social developments developed on administration-owned land and generated totally using administration funds. Beneficiaries of social housing projects make down payments at the start of construction after the tender or at a specific point (decided by the administration) and make monthly payments based on a single-indexed re-payment plan. The official public sector pay index is used for most of these projects, where monthly installments are increased semi-annually. Turk Stat announced it. The loan payback maturities for these projects are set at 10 - 20 years on average, depending on the income patterns of the target groups. TOKI completes the building of dwelling units in 36 months (TOKI, 2022).

Looking at the distribution of projects within TOKI's social housing program and the realizations as of January 2022, 47% of TOKI's social housing program is for low and middle-income groups. 14 % of the projects have been produced for underprivileged people. The urban renewal initiatives, which have recently gained prominence, have a 17 % ratio. Furthermore, post-disaster housing projects account for 7.36% of the total social program, while agricultural village initiatives account for 0.70 %. Because TOKI owns the property right until the debt is paid off, the project repayments are guaranteed.

That is, TOKI is acting as a "guarantor" for the project's repayments. The fact that title deeds are not handed to buyers until all obligations have been paid reduces the default situation. In fact, the default rate is close to zero. The repayments of TOKI's realized sales and loans are sought and collected through public banks in the name of TOKI. Collections accumulated in banks are transferred to the Administration's accounts in accordance with the protocols with the banks.





*Figure 4. TOKI housing in Adana (city of south Turkey 2015), Source : TOKI 2022*

Some disadvantages of the Republic of Turkey's housing development administration have been highlighted in the academic, highlighting a topic that has been discussed in a variety of ways. These are issues like whether social housing is adequate for the low-income target group. Furthermore, the issues concern the ability of mass housing to be integrated into urbanization.

According to Ekmekci, rising housing prices have made it even more difficult to find affordable housing. Low-income people are having difficulty finding affordable housing as a result of this increase. The Turkish Mass Housing Administration provides low-income people with affordable housing known as "social housing." Although there is a lack of supply of "social housing," it is not affordable when the life cycle costs are considered (Ekmekçi, 2021). Moreover, there are no subsidies for low-income residents. Low-income families in Turkey are especially vulnerable to shifting market conditions and rising housing prices due to a lack of government support and an inaccurate and incomplete implementation of the concept of affordability.



---

The pandemic exacerbates the already existing issue of affordability. Increasing inequality has exacerbated the problem of unemployment and housing instability (Ekmekçi, 2021).

The construction and housing industries are also critical to macroeconomic performance. After 2010, the state's share of housing sector investments was around 2.4 %, with housing investments accounting for more than 11 % of public investments. Because the construction sector works around 7.4 %, it is a significant employer. Between 2005 and 2014, the rate of housing in the building sector was 75% (Pinar & Demir, 2016).

	Owned %	Rented %	Social Houses %	Total Social Houses
Netherlands	54	11	35	2 400 000
Austria	55	20	25	800 000
Denmark	52	17	21	530 000
Sweden	59	21	20	780 000
UK	70	11	18	3 983 000
France	56	20	17	4 230 000
Ireland	80	11	8	124 000
Germany	46	49	6	1 800 000
Hungary	92	4	4	167 000
Turkey*	67	26	2	536 649

*Table 1. The Ownership of Housing in EU and Turkey Source: (Pinar & Demir, 2016)*

In comparison to other EU nations, Turkey has a relatively low proportion of tenants in social housing. Housing and rent accounted for around 27 % of household consumption expenditures between 2002 and 2013. Despite this, a rate of less than 30% appears to be acceptable when compared to the average of other countries. Given the low per capita income, this rate appears to be high.

---

According to TURKSTAT's population and housing data, around 67 % own their homes, 24% rent, and 1.5 % live in free housing (flats provided to public officials). Approximately 7% of the population does not own a home but does not pay rent (they probably live in homes owned by their parents or relatives). Istanbul has the highest tenant rate, at 31.5 % (TÜK, 2011). The ownership rate is high in comparison to the average developed country (41% in Germany, 60 % in Japan, and 68 % United States).

In countries with high per capita incomes and well-organized mortgage systems, ownership is higher. This could be because of house quality or construction expenses. It should also be emphasized that the greater availability of mortgage loans has the potential to significantly increase house prices and consequently impair housing affordability. Furthermore, the size of the homes varies greatly (3.8 persons per household in Turkey, 2.2 in Germany, and 2.5 in the United States). (Pinar & Demir, 2016).



*Figure 5. TOKI Housing in Halkalı Province of Istanbul, Turkey Source: (TOKI 2022)*

---

In another opinion, Devrim pointed to the transformation of TOKI in the last two decades, as he mentioned in his research, and at the same time, Turkish big cities have produced similar low-cost products as a design tool for TOKI's state profile profit architecture and urbanism in the recent past. It has taken on new duties from producing profit-oriented projects aimed at preserving the historical texture and has been authorized to make and approve the zoning plans of parcels and parcels.

The last government (Justice and Welfare Party) established as an investor-entrepreneur-contractor-manager group was handed over to TOKI (Devrim, 2016). Despite TOKI declarations, there are still many social, physical, urban, and architectural problems highlighted in the most recent HABITAT report involving housing implementations and TOKI applications related to recent governmental housing policies.

These are the following: no interaction relationship between stakeholders such as the government, municipality, construction bureaucrats, the user (the flat owner), client/investor, urban planner, real estate developer, designer, and contractor (no open, shared, transparent application procedure); low-profile architectural identity, syllable of non-architecture in every region of the country; no differentiated design scenarios, no site plan differentiations, no classified plan types; no variations in plan organization—architecture based on social housing, mass housing, public housing, or group housing concepts; low quality of construction technology and materials; no energy-saving policy; low quality of infrastructure, installation, insulation, and ventilation; no consideration of the climatic, environmental, and local urban characteristics of the anticipated residential regions for investment; Profit-oriented investments, low quality architectural and building projects taking place primarily geographically and socially, or in itself (Devrim, 2016).

---

### 1.2.3 Housing Affordability in Turkey

It is challenging to describe housing affordability simply because it is related to many concerns (e.g., housing quality, housing condition, housing expenses, household income) and people who play diverse roles (e.g., tenant, owner). Similarly, it has been measured using a wide range of methodological approaches (Mattingly & Morrissey, 2014). Despite increased scholarly concern about this issue, there is no agreed-upon definition and measuring method for housing affordability in the literature. However, home affordability can be defined as the link between housing expenditures (prices, mortgage payments, or rent) and household income (Stone, 2006). Since the establishment of the Turkish republic, some significant steps have been taken to address the issue of housing affordability. The Turkish home affordability problem can be divided into two stages: before and after 2002. Prior to 2002, the measures implemented were ineffective throughout the country. They were like local projects.

However, following 2002, several initiatives (e.g., the Planned Urbanization and Housing Production Program, the Tenth National Development Plan, and the KENTGES Integrated Urban Development Strategy and Action Plan) contributed to the resolution of this problem, albeit to a limited extent. However, there were some issues with the economy. While economic issues (such as the budget deficit and inefficiencies in the mortgage markets) reduced the effectiveness of the policies put in place, they encouraged the expansion of squatter and luxury housing rather than social housing. The inability to construct an institutional form capable of providing housing to the lower-income group, as well as the non-theoretical framing of the policies, kept the problem from being solved (Stephen Ezennia & Hoskara, 2019). The Turkish housing system differs from that of other developing countries. To begin with, social housing in Turkey has only been developed by the public sector through the Housing Development Administration (TOKI) for low- and middle-income households. TOKI, as previously noted, constructs flats for owner-occupation at subsidized rates for households. Due to commercial concerns, the private construction sector avoids involvement in the production of social housing.

---

Second, most Turkish households do not use mortgages to buy a home. Personal savings are the most common source of capital used to purchase a home. According to TOKI (2006) research, 75 percent of homeowners who do not utilize a mortgage use personal savings as financial sources to acquire a home. That means that households that receive housing from TOKI have no mortgage payments yet are owing to TOKI. Beneficiaries of social housing built on TOKI's own lands make down payments before commencing to settle in their dwelling at the start of the construction phase, and their monthly payments continue according to TOKI's repayment plans. Monthly payments for low-income groups are increased at the rate of whichever indicator of the public sector salary index, domestic producer price index, or consumer price index is the lowest (TOKI 2020). TOKI adjusts the monthly instalment based on the lowest of these rates. According to the indicators, monthly instalments rise twice a year. This is only a payment coming from the purchase of the real estate. Even when other housing expenditures are not considered, some households face housing affordability issues. Housing affordability has been often stated in the affordability dilemma as short-run measures that compare household income with housing expenses.

Even though some scholars emphasize the relevance of housing expenditures (Ekmekçi, 2021), the term "housing expenditures" is still being debated in the literature. In most cases, housing operating expenditures are overlooked. Ignoring the existence of the housing running cost causes this problem to be addressed poorly and delays the discovery of an accurate solution. When compared to the initial cost of the dwelling, running expenditures such as utility payments, repair-maintenance charges, services, and property taxes play a vital role in the budget. According to the literature, the average household spends a significant portion of their monthly income on home utilities including electricity, heating, and water. Affordability in the Turkish housing sector indicates "affordability of running expenditures linked with the residence" (Özdemir Sarı & Aksoy Khurami, 2018).

---

## Conclusion

In this part of the thesis, the role, and sanctions of The Governmental Institution in the mass housing administration are explained. Due to the increasing migration and rapid urbanization in Turkey, the “housing problem” has come to the fore because of insufficient housing opportunities in the cities. Housing policies and mass housing practices in Turkey play an important role in overcoming the problem, which has become one step more difficult, especially for big cities. This situation has brought the construction of housing through urban transformation, that is, the transformation of already built places.

As a matter of fact, since this intervention was difficult to implement, TOKI was again subordinated to the Prime Ministry, as it was in the past, in order to both overcome the legal difficulties and remove the possible social pressure that may arise as a result of urban transformation.

After all the developments, TOKI has become the most important housing manufacturer and import duties have been given to the institution (Güç, 2017). At the same time, the Housing Development Administration of the Republic of Turkey, which has been the subject of many academic fields, has also been discussed from different perspectives.

The other point of contention is the primary mission of Turkey’s Housing Development Administration (HDA). The most visible duty is public assistance for social housing for low and middle-income populations. Because the installments are high in comparison to their monthly incomes, and the repayment time is short, the income level of those groups is insufficient to own properties through a mortgage system (Pinar & Demir, 2016).

---

Another major discussion on the issues in TOKI housing projects that are causing Turkish cities to be low-profiled and homogenous. The structure ignores geographical characteristics such as urbanity and urban morphology, topography, climate, and cultural or regional distinctions. In other words, the initiatives disregard both environmental and cultural sustainability. Turkey, as a developing country, has a high demand for housing stock. TOKI, being the pioneer of mass housing foundations, has a significant impact on Turkish housing construction. However, sustainability has not been a primary priority for Turkish architectural practice, either in TOKI projects or in general (Devrim, 2016).

---

## 1.3 The Real Estate Market in Turkey

### 1.3.1 Overlook About Real Estate

Many developing countries were experiencing an increase in housing demand. This observed change is primarily due to economic and demographic variables. Because Turkey is considered a developing country, this pattern holds accurate. Many variables influence the country's housing demand, including growing population rates, increased urbanization, lowered average household population, and economic growth rates, all of which have a substantial impact on demand in Turkey. Because of the vast implications of the housing sector on the economy, housing demand analysis has recently become extremely significant for decision-makers and market participants (Farzat, 2020).

Household consumption behavior, often known as household expenditures, is one of the primary factors in the housing sector, influencing both demand and supply in the market. Household expenditures are inextricably linked to policy constraints and the current position of the domestic economy.

A stable political and economic environment can improve household purchasing power, resulting in a multiplier effect on the economy. The major elements that could directly affect household consumption expenditures are the growing population, government regulations, and the housing sector's part of the country's fixed capital investment. Another key indicator that depicts consumer attitudes about the housing industry and provides a general prognosis for the future is the construction confidence index, which showed a fluctuating pattern (Farzat, 2020).

In addition, the economic crisis had a greater impact on unemployment than the Covid-19 pandemic. However, the total number of poor people has been steadily rising since 2017. This is reflected slightly in the poverty rate. As of 2020, 23% of Turkey's total population is at risk of poverty, earning less than 60% of the country's median equivalised income. The share of housing and rent expenditure in the household budget cannot be thoroughly examined; however, under the lockdown conditions and high inflation, it is expected that household expenditure on housing and rent increased.



---

Year	Unem- ployment (%)	Number of poor (Thou- sands)	At risk of poverty (%)	The share of housing expenditure in household budget	Housing cost overburden rate	
					Whole population (%)	People at risk of poverty (%)
2015	10.3	16,706	22.5	26	11	21
2016	10.9	16,328	22.8	25.2	10	20
2017	10.9	15,864	22.2	24.7	10	19
2018	11	16,888	22.2	23.7	10	20
2019	13.7	17,207	22.4	24.1	11	23
2020	13.2	17,921	23	NA	10	24
2021	12	17,636	NA	NA	NA	NA

---

*Table 2. Indicators related to employment, poverty, and housing expenditure of households (NA Data not available) Source: (A.Khurami & Özdemir Sari,2022).*

Furthermore, the rate of housing cost overburdening indicates that the poor segments of society were more affected than the rest of society (Khurami E & Özdemir Sari,2022). Another part of the issue is that the housing market is linked to a country's social structure. Turkey's young population structure, continued urbanization because of the internal migration, continued external expansion from various countries, particularly neighboring countries, increased housing purchases by foreigners, and the shrinking Turkish family structure all indicate that demand for long-term housing will increase in Turkey (Bilik & Aydın, 2018).

The other major issue confronting developing countries is the current account, as well as the foreign capital inflows utilized to finance the deficit and the resulting currency rate volatility. When exchange rates rise due to capital movements, it creates persistent current account deficits and risks. The main reasons for exchange rate overvaluation are the short duration of capital inflows and high domestic inflation relative to the rest of the world. A rise in foreign exchange demand can be detected as a result of increased housing prices on consumption and imports (Hacievliyagil, Drachal, & Eksi, 2022).

---

### 1.3.2 The Global Financial Crisis and the Housing Market in Turkey

The expansion of the 2008 mortgage crisis from the United States to the rest of the world raised global interest in the real estate sector. (The asset price boom before the 1997 Asian crisis, as well as the 1929 and 2008 US crises, are examples of large financial crises that can be created by speculative housing price bubbles.) Monitoring housing sector price changes and loan amounts became obvious during the 2008 global financial crisis, and its importance has grown even more since then. Monitoring of housing prices, both reflects housing market developments and provides information about the housing market's relationship with others. Macroeconomic variables have enabled both independent and state organizations to closely monitor the housing market (Farzat, 2020). Long-term increases in housing prices, along with insufficient investment, can lead to speculative price changes which have a negative impact on long-term economic growth (Hacievliyagil, Drachal, & Eksi, 2022). When the repercussions on other areas of the economy are considered, the analysis of housing prices becomes even more important.

The fact that housing has an impact on financial stability both directly and indirectly has made it necessary to monitor the housing market and property prices. Because of its forward and backward effects in both developed and developing countries, the housing sector is one of the most important economic drivers. Resource allocation is becoming increasingly crucial, particularly for the economic stability of developing countries. Housing market developments can have a significant impact on long-term sustainable economic growth by influencing the allocation of resources employed in production. Excessive investment in the housing market might cause resource allocation to be delayed and hinder adequate investment in areas such as education, industry, and high technology that are required for long-term growth. As a result, developing countries are facing major financial challenges. The credit growth trend approach is the main link between real estate price determination and important macro variables.

---

Because home purchases are financed by finance, the banking system, increased financial depth, and rapid loan growth tend to promote housing demand, possibly by rising property values. In principle, this is known as the housing price channel. The house pricing route can be defined as the process of changing total output and price level due to some financial policy changes that affect real estate values such as houses and land, and thus household investment and expenditure. High-interest rates promote household savings while decreasing demand for investment property. When interest rates fall, however, housing prices climb. The growth in housing values increases consumption and investment via income and wealth. As a result, overall demand rises (Hacievliyagil, Drachal, & Eksi, 2022).

### **1.3.3 Overview of Primary Mortgage Market**

The housing sector in Turkey, like that of other rapidly industrializing countries, is facing significant issues as a result of growing urbanization. People are struggling to make ends meet due to rising rents and home costs. Because of the low-income level, the mortgage system is inoperable, and long-term loans are not available. In fact, the mortgage system is an effective means to deal with the financial bottleneck in the housing sector, and the mortgage law has raised public expectations.

However, high inflation rates, high and changeable interest rates, financial market fragility, and economic indicators made it difficult to apply the system efficiently. Interest rates in developed countries are considerably below unity, and inflation rates are quite low. Unless and until this issue is addressed, the industrialization process will be seriously hindered. In this regard, housing-related public policies are critical. One solution to the housing shortage in social housing (Pinar & Demir, 2016).

Furthermore, in countries where mortgage financing is unavailable, housing and real estate development, in general, are created in stages, so they are frequently perceived as “incomplete” but occupied by middle- and low-income residents. Additionally, a developing country sometimes eliminates a significant number of potential market participant due to a lack of finance (Coşkun, 2011).

According to some estimates, housing loans or corporate housing finance account for only 3% of total housing construction in Turkey. In another sense, self-financing is the primary method of financing in the Turkish housing finance system. Despite the contributions of the real estate market to long-term savings and general economic growth, the link between the real estate market and local financial markets in Turkey is not like that of more developed countries. In terms of the primary mortgage market, house loans in Turkey are low in comparison to EU countries. In this background, whereas the EU 27 house loan/GDP ratio was 40.8 % in 2007 (one of the greatest years in the Turkish housing market), it was only 3.9 % in Turkey (The Central Bank of Turkey, 2008: 23). In terms of general household liabilities, Turkey, as seen in (Table 3), remains severely behind European countries (Coşkun, 2011)

	Household Liabilities Excluding Housing Loans/GDP* (%)			Household Liabilities/GDP** (%)		
	2005	2006	2007	2005	2006	2007
Lithuania	4,1	6,7	8,6	13,2	19,3	25,9
Czech Rep.	4,7	5,3	6,2	14,3	17,3	21,4
Hungary	6,8	9,2	10,9	16,9	21,1	23,2
Latvia	7,7	9,3	9,3	27,1	38,3	43,3
Poland	9,7	10,7	13,1	15,1	18,2	23,7
Italy	12,3	12,7	13,0	27,6	29,2	30,3
Greece	12,4	14,2	13,2	36,2	41,0	40,9
Portugal	13,9	15,1	16,5	67,3	74,3	78,6
Spain	19,1	20,8	21,2	68,6	76,8	80,4
EU 27	15,3	15,3	15,0	54,6	56,4	55,8
Turkey	5,7	6,6	7,8	7,7	9,7	11,7

*Table 3. Household Liabilities to GDP in Selected Countries (2005-2007)*  
*Source: Central Bank of Turkey 2008: 23.*

In this period in Turkey, the increase in housing prices continues in the same way. Within the scope of the fight against the rise in inflation caused by the fluctuation in exchange rates and the increase in food prices caused by the COVID-19 epidemic, the increase in the policy rates of the Central Bank brought about the increase in loan interest rates. While it increased by 11.2% compared to the previous year, it was realized as 1,499,316; In the last quarter of 2020, with the effect of the increase in housing loan interest rates, it decreased by 37% compared to the previous quarter and became 338,038.

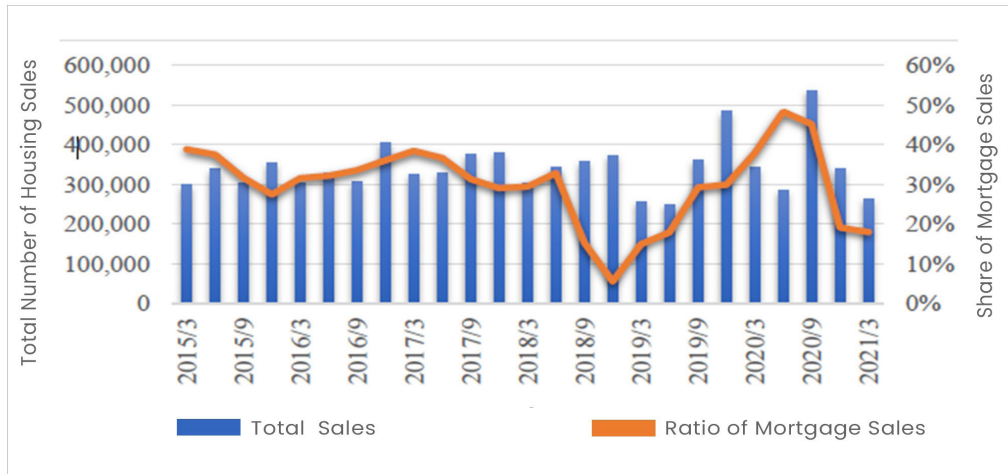


Figure 6. Share of Total Housing Sales and Mortgage Sales in Total Housing Sales Source: (TUIK Housing Sales Statistics, 2021)

There has been a great decrease in mortgaged house sales in 2020 since the last quarter of the year, and the mortgaged sales decreased by 55.3% compared to the same period of the previous year and became 64,647 (Demirhan, 2021).

## Conclusion

This chapter analysed how the real estate sector, particularly the housing sector, plays a crucial role in Turkey's economy. The housing and construction sectors both stimulate many other sectors and have a multiplier effect on aggregate demand in Turkey. Because of this characteristic, the housing sector is one of Turkey's main dynamic sectors. The demand for housing in Turkey has increased in recent years due to rapid population growth, high urbanization rates, increases in average household income, changes in the need for housing types over time, the expansion, ease, and expansion of credit channels, the availability of mortgages, and low-interest rates on dwelling credits (Özsoy & Şahin, 2021). As a result, it is critical to identify the factors influencing housing prices in order to guide potential buyers, home builders, city planners, and policymakers. The housing market is distinct from other goods and services markets and requires unique consideration when looking for factors influencing housing demand and supply decisions.

---

## 1.4 Izmir, Main Overview, Urbanization, and Housing Issues

### 14.1 Izmir's Main Overviews

Izmir, Turkey's third largest city; Besides being a modern and developed city, it is an important center of culture, art, tourism, and trade. Ephesus, which is the ancient city in Izmir among the most famous cities of ancient times in history, was one of the largest cities in the world during the Roman period. Ephesus, which embodies the riches of all Ionian culture, was also making a name for itself with intense artistic activities. It is always an interesting city due to its historical background and geographical beauty. With its total population of 4,425,789 residents as of 2021, Izmir's density has been calculated as 359,557 ppl/km<sup>2</sup>.

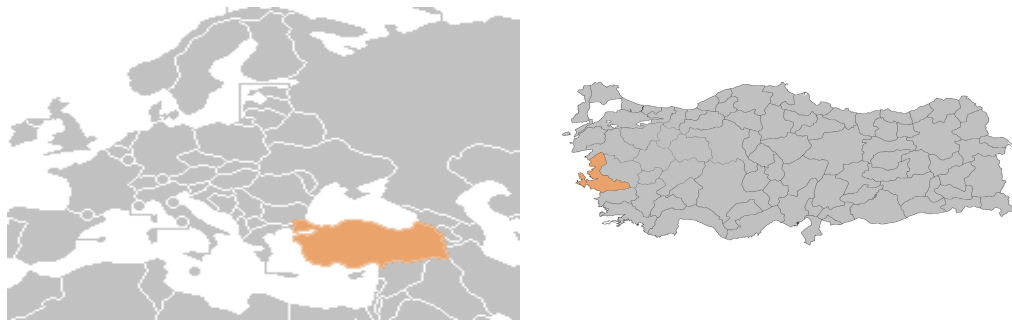


Figure 7. Location of Diagrams Turkey, Izmir Illustrated by Autor

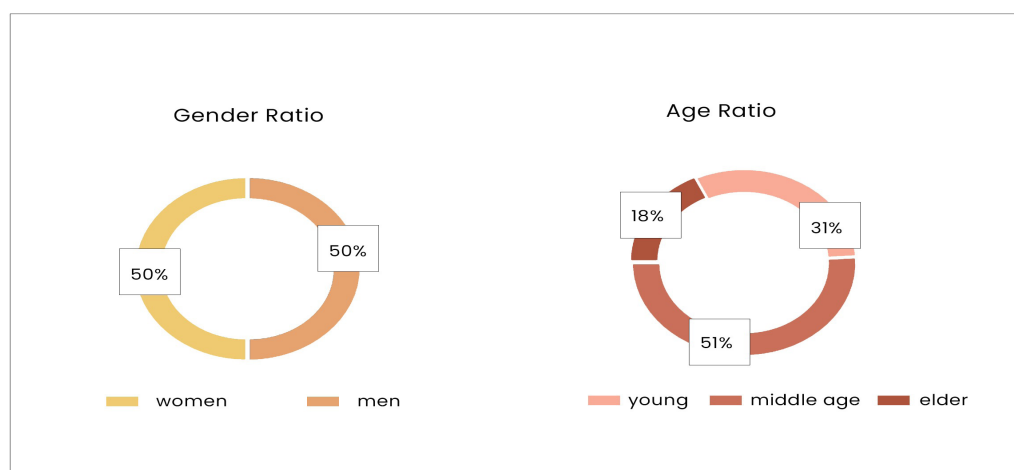


Figure 8. Demographic Diagrams of Izmir. Based on Turkish Statistical Institute data. Source: (Endeksa 2022) Illustrated by Autor

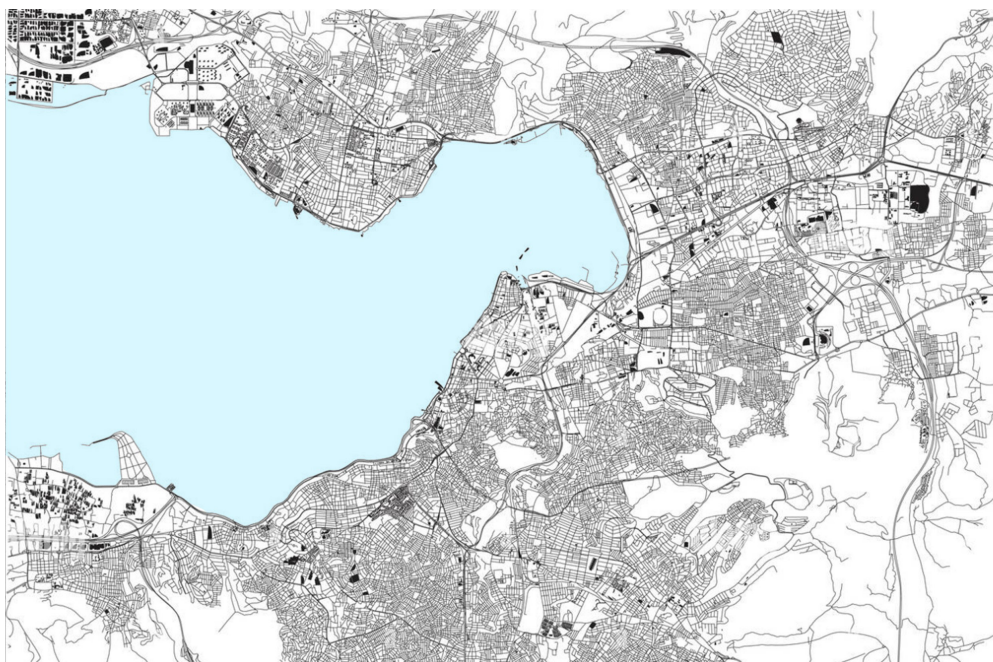


Figure 9. Urban vector city map of Izmir

The rapid spread of cities, particularly in developing countries, is one of the most significant post-war demographic phenomena, and it promises to grow even greater in the future. In Izmir, urban populations are expected to nearly treble to 5.1 billion by 2030.

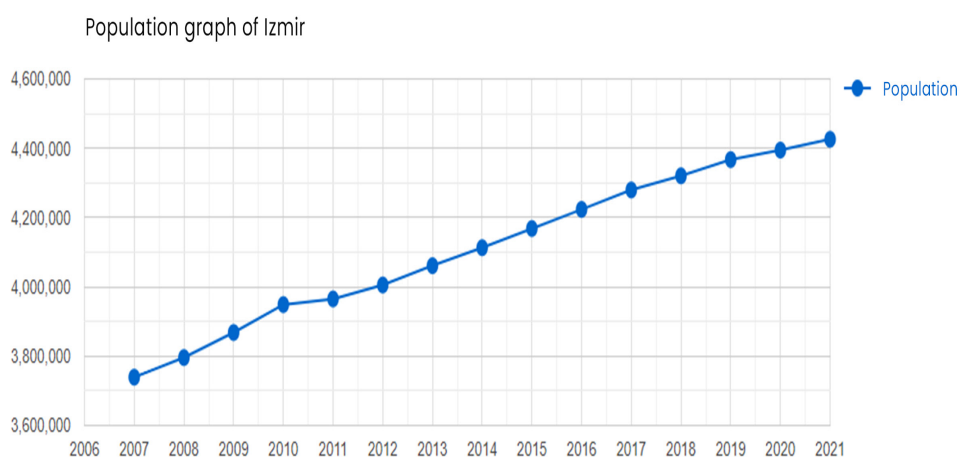


Figure 10. Population graph of Izmir between 2006–2021 Source: (Nüfusu, 2022)



---

Rural-urban migration was regarded positively in the economic development literature until the end of the 1960s. Internal migration was assumed to be a natural process in which surplus labor from the rural sector was gradually withdrawn to provide the manpower required for urban industrial growth.

However, migration now must be viewed as a key contributor to the widespread issue of urban excess labor, as well as a driver that exacerbates already serious urban unemployment problems. Another issue brought about by the flood of migrants is the growth of squatter colonies in metropolitan areas. Squatting can be considered as a subset of the greater issue of inadequate urban housing. The process of urbanization in developing-country cities appears to be exceeding the metropolitan system's ability to supply an adequate quantity of jobs and housing for new arrivals seeking employment. However, terrible living and working conditions in rural areas are undoubtedly the primary motivator for people to relocate to cities.

In Turkey, whose population growth rates were relatively stable until the 1950s, the first large-scale migratory movements began between 1950 and 1960, with major cities such as Istanbul, Ankara, Izmir, and other industrial and trade-based cities receiving the lion's share of immigration. As a result, of development plans in the calendar of the 2000s, unbalanced rises in population ratios put a strain on cities like Izmir, which provide employment not only in agriculture but also in areas other than agriculture. As a result, of development plans in the calendar of the 2000s, unbalanced rises in population ratios put a strain on cities like Izmir, which provide employment not only in inadequate conditions but also for inhabitants faced with housing problems in areas. In summary, special emphasis devoted to the inflow of population to cities frequently overburdens the capacity of metropolitan governments to provide employment, basic services, housing, and sanitation living conditions for inhabitants (Tatlidil,2015).



---

## 1.4.2 Urbanization Process of İzmir

The urbanization process of İzmir is briefly explained in this part. The urbanization process in İzmir can be divided into five stages: From 1923 to 1945, the period of nation-state establishment; 1945 to 1960, the period of liberalization of the local economy through import substitution; 1960 to 1980, the period of increasing effects of import substitution on urban development; 1980 to 2000, the dominance of neoliberalisation policies on urban development; and 2000 and on, the period of urban entrepreneurialism in İzmir.

Until the early republican years, urban development in İzmir had dominant port city characteristics depending on its agricultural and early industrial production features. Between the 1923– 1945 period, İzmir started to integrate the industrialization process in Turkey, thus the local economy and urban development in İzmir were shaped through the industry. In 1938, although Le Corbusier started to prepare the first comprehensive master plan of İzmir, had it not been completed until 1948, because of the Second World War. This plan was not implemented because of outdated economic, political, and spatial changes during the preparation time (Uysal, 2019).

Between 1945 and 1960, the local economy was liberalized through import substitution. Foreign and private financial partnerships were used to develop industrial production infrastructures and enterprises. With the increased need for workers in industrial production following the Marshall Plan in the 1950s, migration from rural to urban surged.

Efforts to integrate with global and national trends, as well as to improve and revitalize, became visible in İzmir between 1945 and 1960. Since the Le Corbusier proposal was not implemented, the İzmir Development Plan Competition was held in 1952 to create a new master plan for İzmir. The development plan was criticized for failing to adapt to the requirements of developing İzmir and for failing to intervene effectively against an increasing number of squatters.

---

These critics are particularly important in two ways: incorrect population projections and the fact that the plan was regularly changed. İzmir had a population of 23.000 people in 1950. According to the development plan's demographic projections, the population would reach 400.000 in 2000. However, the population had already climbed to 520.000 in 1970. After the development plan was established in 1953, about 5000 plan revisions were submitted to the Ministry of Development and Settlement, with approximately 1200 plans being approved (Uysal, 2019).

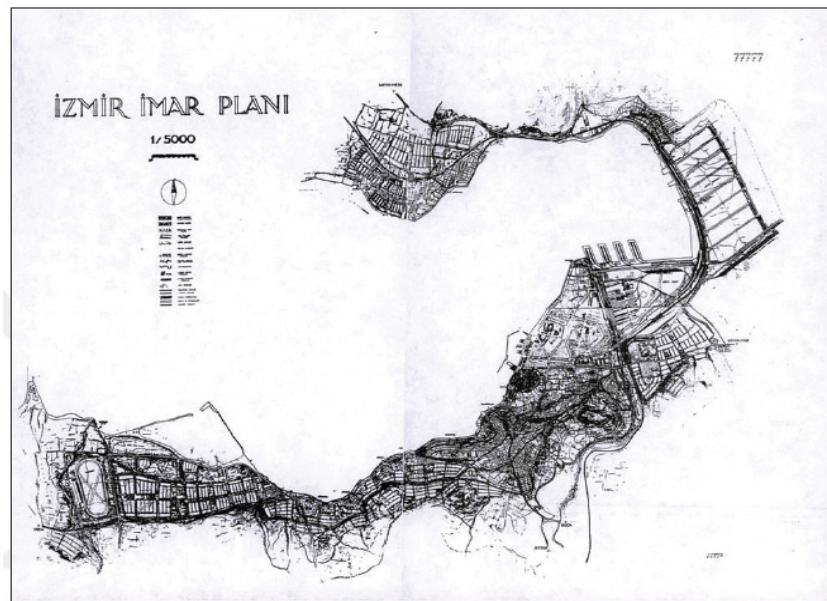


Figure 11. Development Plan of İzmir in 1953 Source: (Uysal.2019; İzmir Metropolitan Municipality archive, n.d.)

In 1960 and 1980, the effects of import-substituted industry were more obvious in İzmir's urban growth. Migration increased the population, which resulted in the establishment of squatter housing zones. Due to the enactment of the Mass Housing Law regarding the increasing number of constructions in İzmir in the 1980s, another factor affecting urban development was mass housing production. Municipal organizations have been founded in parallel with the increase in the population of the neighboring communities, and the number of municipalities outside of İzmir Municipality has reached 10.

---

Only after five years, in 1978, was a revision development plan prepared plan of İzmir 1978. Through the 1980s, İzmir had an important rate of immigration. The immigrants had to deal with the unemployment and housing problem because the economic sectors and the urban development in İzmir were not sufficient to respond to the immigration.

Furthermore, beginning in the 1980s, the sectors comprising the secondary circuit of capital, such as commerce and tourism building, drove urban development in İzmir.

The İzmir Metropolitan Municipality prepared and approved a city master plan in 1989. However, this plan did not include macro-level decisions based on a holistic approach or long-term urban development decisions. This plan resembles an upper scaled plan prepared in accordance with reclamation and revision plans from the 1980s (Arkon and Gülerman 1995). Figure 9 depicts the prevention zones of squatter housing settlements and reclamation plans following the 1989 master plan, while figure 12 depicts the İzmir Master Plan in 1989.

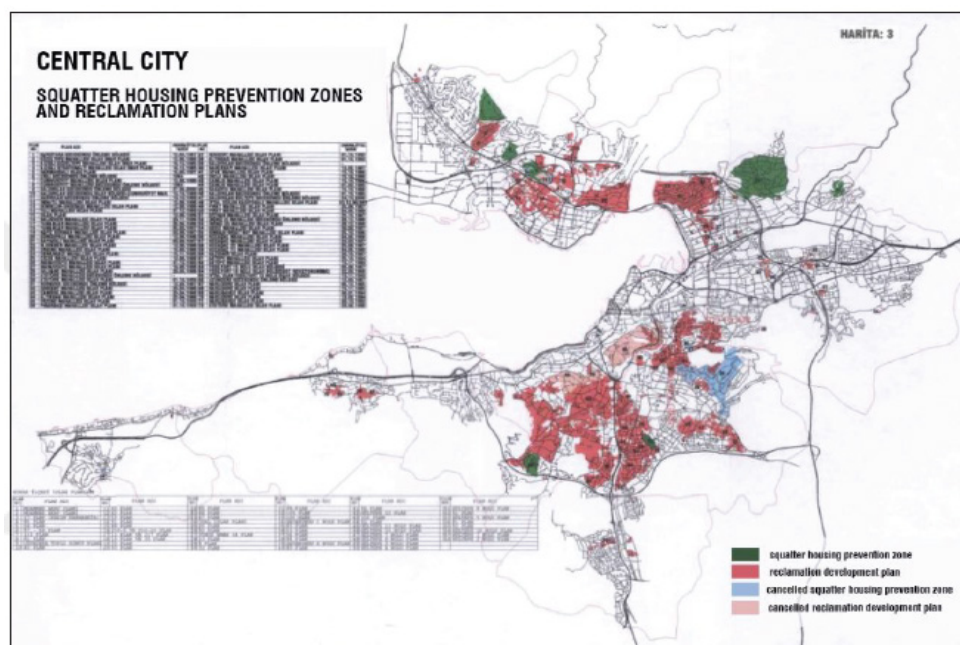


Figure 12. Squatter Housing Prevention Zones and Reclamation Plans in İzmir prepared according to 1989 Master Plan Source: (Uysal, 2019)



---

Luxury residential zones and closed sites began to take their place in rural areas in the 2000s. Residential areas have relocated to rural regions as a result of increasing urbanization issues and new housing preferences in the growing metropolitan center. To appeal to the middle and upper-income groups, low-rise luxury housing estates began to emerge along the northern axis (Uysal, 2019).

### 1.4.3 Housing Emergency in Izmir

Due to the rapidity of urbanization in the historical process in Izmir, many urbanization problems are experienced. Existing problems are growing rapidly due to the increase in population and concentration of industrial activities. The most important of them are unplanned urbanization problems (migration, unplanned urbanization, slums), housing problems, transportation problems, environmental pollution, and security problems. When these migration flows are evaluated in Izmir province, it is of great importance to consider the position of Izmir in Turkey (Alcı, 2007). The effect of the city's districts and surrounding provinces on the transportation network is quite high due to its geographical location. With the start of housing problems in Izmir, mass housing applications started to come to the fore, especially after 1985 (Güç, 2017).

It is aimed to create new urban areas because of the establishment of mass housing applications at certain points of the city and to slow down the formation of slums in these areas. Therefore, it was expected that mass housing settlements would be the core of a healthy and planned urbanization in Izmir. Looking at the first examples of large-scale mass housing projects in Izmir, it is seen that they are produced through cooperation between municipalities and cooperatives (Güç, 2017).

---

Additionally, Izmir is included in many people's retirement plans due to its pleasant temperature, location, and social structure, and its very dynamic property market has drawn the attention of a substantial number of individuals, including foreigners, in recent years. This circumstance raises demand for housing in Izmir, causing housing prices to rise in recent years. Even though several luxury home developments have recently been built in Izmir, house price index numbers suggest that property costs in Izmir are increasing quicker than in other significant cities in Turkey (Özsoy & Şahin, 2021).

Another study found that the total number of house sales in three major cities and Turkey fell between 2014 and 2019 (except for the years 2016 and 2017). The main reason for the decline in home sales during the mentioned time period is the slowdown in the economy. GDP growth rates fell from 5.17% to 2.6% between 2014 and 2018, as shown in (Fig 14.) Furthermore, Turkey's unemployment rate has risen slightly. However, the unemployment rate in Izmir remained around 14% (Özsoy & Şahin, 2021), which was higher than the national average. As a result, the number of houses sold in Turkey decreased in Izmir between 2014 and 2018.

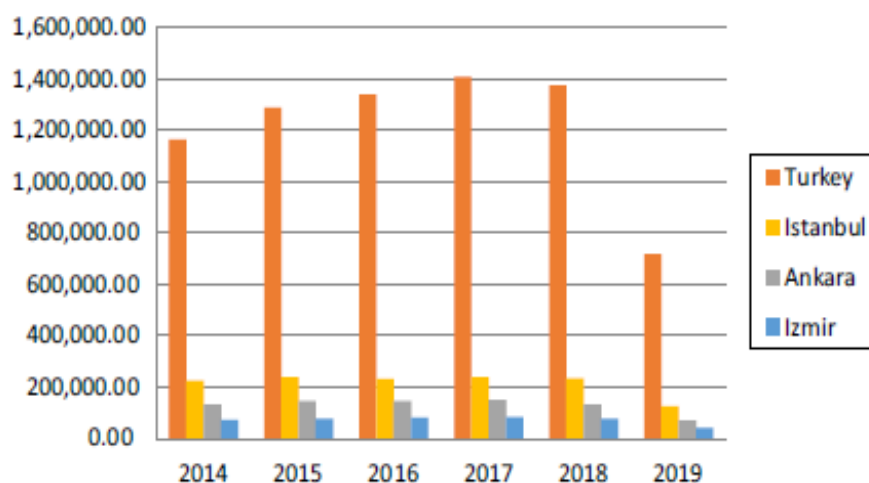


Figure 14. Total number of house sales in the three largest cities in Turkey Source: (Özsoy & Şahin, 2021; Central Bank of Turkey)



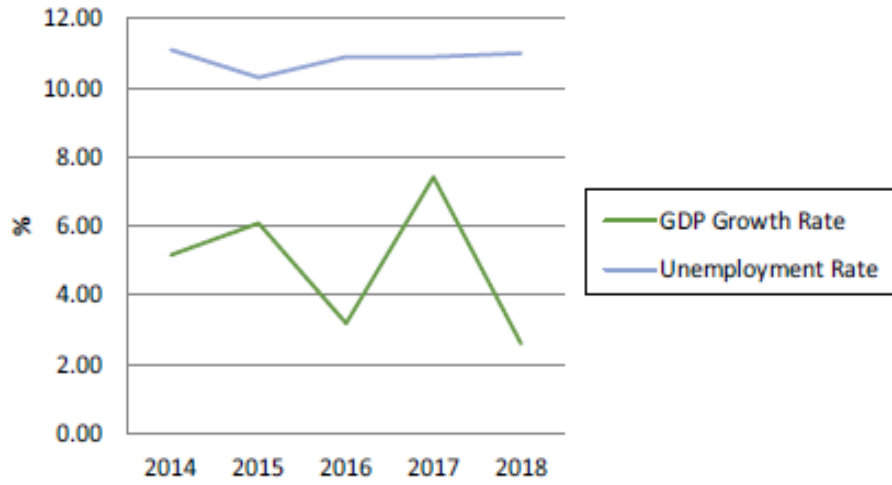


Figure 15. GDP growth rates and unemployment rates Turkey Source: (Özsoy & Şahin, 2021; Central Bank of Turkey and TUIK)

Under the housing emergency in İzmir, the economic structure of İzmir, how many houses were thrown away, and the accessibility and prices of the houses were the main issues that needed to be examined. Housing prices and economic factors show that it is not so easy to determine exactly which factors and to what extent however, apart from the factors mentioned, there are issues that affect the housing emergency and need to be examined. The need for shelter, which emerged as a result of natural disasters, has always been a problem for that city and its people. The closest example of this took place in İzmir. On 30 October 2020, İzmir, one of the fault line breaking points located in the first earthquake zone, experienced a devastating earthquake with a magnitude of 6.6 Mw according to AFAD data, 6.9 Mw. The earthquake depth was approximately 17 km, with Samos as the epicenter, and the earthquake interval was measured at 16 seconds. In the aftermath of the earthquake, a small-scale tsunami occurred in Seferihisar, which is the closest point to the epicenter( Çelik,2022). According to AFAD data, 1230 aftershocks with magnitudes ranging from 1.0 to 5.1 occurred over the course of 62 days. One thousand thirty-four people were injured, 119 died, and many were displaced. This subject will be examined in more detail in the last part of the thesis under the title of The İzmir City and Natural Hazards (Earthquake) Risks.



#### 1.4.4 Residential Property Price Index in Izmir

Housing prices are important indicators of the real estate market and the economy. As a result, data analysis of the home price index becomes increasingly important in terms of monitoring the housing market. However, beginning in 2010, the Central Bank of the Republic of Turkey began to consider the home price index. In this regard, the 2008 financial crisis had a massive influence. In this manner, the nominal housing price index of three major Turkish cities (Istanbul, Ankara, and Izmir) was investigated. Real estate prices increase on average between 2015 and 2020.

House prices increased in all three provinces after 2017.

The highest record was set as a result of urban transformation and an increase in the city's net migration rate in the city, the highest record in 2020 is in Izmir (Farzat, 2020).

Addition to this, many reports show the housing price increases in Izmir, and the ever-increasing inflation deeply affects the housing market.






	Residential Property Price Index	Residential Property Price Index for New Dwellings	Residential Property Price Index for Existing Dwellings	Unit Prices (TL/m <sup>2</sup> )*
 TÜRKİYE	347.5 (110.0%)	377.1 (116.5%)	342.9 (109.2%)	9502.1 ₺
 İSTANBUL	317.9 (122.0%)	358.9 (137.5%)	318.5 (123.7%)	15341.9 ₺
 ANKARA	333.5 (111.7%)	411.3 (130.0%)	326.9 (110.8%)	6830.7 ₺
 İZMİR	364.0 (105.9%)	400.5 (125.6%)	358.6 (102.1%)	11048.6 ₺

Table 4. Residential Property Price Indices (2017=100) and Unit Prices  
Source: (Central Bank of the Republic of Turkey)2022

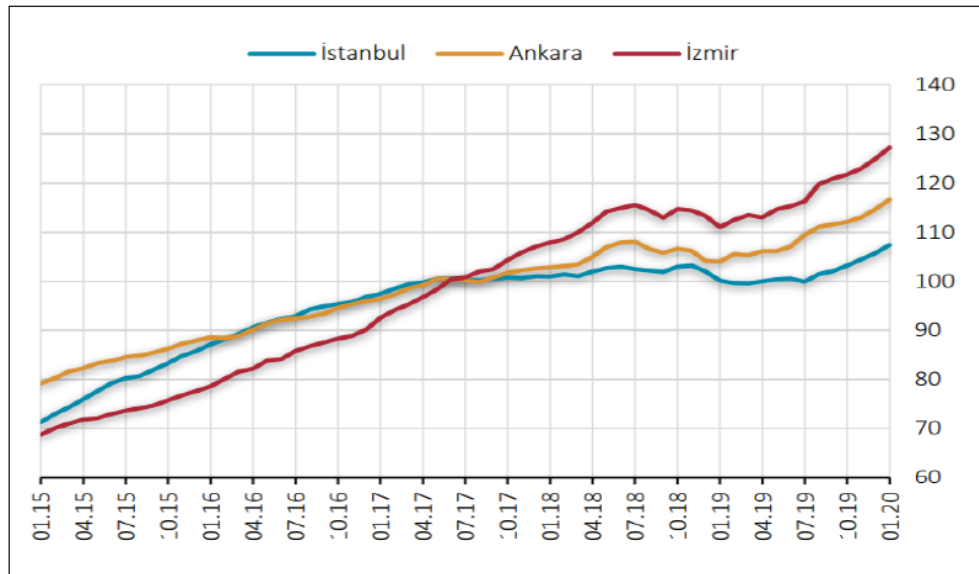


Figure 16. The Housing Price Indexes Source: (Central Bank of the Republic of Turkey)2022 Source: (Central Bank of the Republic of Turkey)2022

According to the ENDEKSA report in Izmir province, in February 2022 sale residential prices are 108.26% increased. Average in the same specifications for sale residential prices are 723,625 TL. The average for sale residential property size is 125 square meters. Figures 17 illustrate the increasing topicality of residential housing prices in the period of 2018–2022 and estimates for the next years.

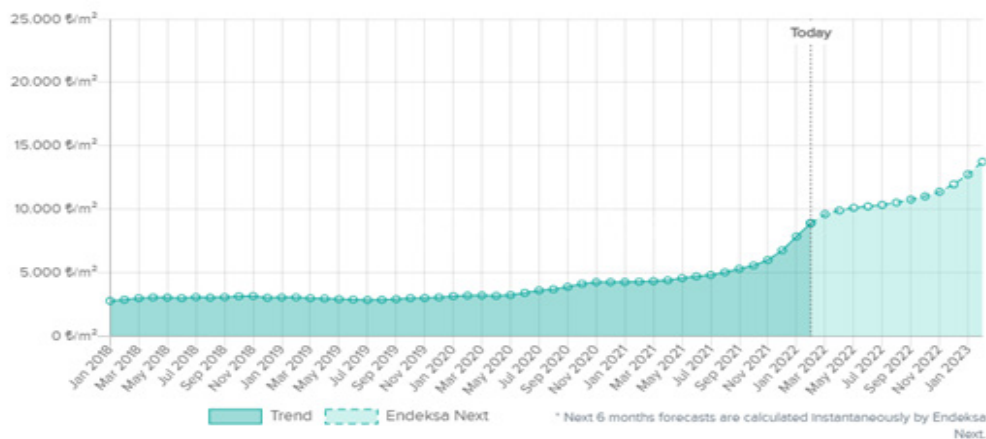


Figure 17. Izmir For Sale Residential m² Unit Price Source: (Endeksa,2022)

---

Moreover, in the Knight Frank Global Residential Cities INDEX, Q2 2021, (Knight, 2021) report, three of the top 10 cities in the world where housing prices have increased the most in the last year are Turkey. Izmir, Istanbul, and Ankara were among the top 10 in the research covering 55 countries and 150 cities between the second quarters of 2020 and 2021. While İzmir ranked second with an increase of 30 percent, Istanbul was ranked ninth with 26.4 percent and Ankara was listed in the 10th place with 25.8 percent. The report reveals how much housing prices increased in 150 cities between 2020 and the second quarter of 2021.

**THE KNIGHT FRANK GLOBAL RESIDENTIAL CITIES INDEX, Q2 2021**  
RANKED BY ANNUAL % CHANGE (Q2 2020-Q2 2021)

CITY	12-MONTH CHANGE (%)	CITY	12-MONTH CHANGE (%)	CITY	12-MONTH CHANGE (%)
1 HALIFAX	30.8%	51 SOFIA	11.9%	101 SHANGHAI	4.6%
2 IZMIR	30.0%	52 CARDIFF	11.8%	102 PARIS	4.6%
3 SEOUL	30.0%	53 GUANGZHOU	11.4%	103 PRAGUE	4.5%
4 PHOENIX	29.3%	54 BRISBANE	11.2%	104 RIGA	4.4%
5 MOSCOW	28.8%	55 EXETER	11.1%	105 NANJING	4.4%
6 HAMILTON	28.0%	56 QUEBEC	10.8%	106 SAO PAULO	4.4%
7 SAN DIEGO	27.1%	57 VIENNA	10.7%	107 TIANJIN	4.3%
8 ST. PETERSBURG	26.7%	58 WINNIPEG	9.9%	108 THESSALONIKI	4.0%
9 ISTANBUL	26.4%	59 HAMBURG	9.1%	109 SKORJE	4.0%
10 OTTAWA GATINEAU	25.8%	60 MUNICH	9.1%	110 SANTIAGO	3.9%
11 ANKARA	25.8%	61 BIRMINGHAM	8.9%	111 ABERDEEN	3.7%
12 SEATTLE	25.1%	62 BERLIN	8.6%	112 SHENZHEN	3.6%
13 WELLINGTON	24.7%	63 XI'AN	8.4%	113 KYIV	3.5%
14 HOBART	24.6%	64 KUALA LUMPUR	8.3%	114 BOGOTA	3.4%
15 CANBERRA	23.5%	65 WARSAW	8.3%	115 ZAGREB	3.3%
16 BRATISLAVA	22.6%	66 BRISTOL	8.2%	116 ZHENGZHOU	3.2%
17 SAN FRANCISCO	22.0%	67 CHONGQING	8.1%	117 BUCHAREST	3.0%
18 DALLAS	21.3%	68 LJUBLJANA	7.8%	118 MADRID	2.8%
19 MIAMI	20.1%	69 EDINBURGH	7.8%	119 LIMASSOL	2.8%
20 DENVER	19.6%	70 FRANKFURT	7.6%	120 LISBON	2.7%
21 COPENHAGEN	19.4%	71 AMSTERDAM	7.5%	121 HANGZHOU	2.7%
22 MONTREAL	19.4%	72 GENEVA	7.2%	122 MILAN*	2.6%
23 MALMO	19.4%	73 SINGAPORE	7.1%	123 SEVILLA	2.6%
24 DARWIN	19.1%	74 TALLINN	7.1%	124 HONG KONG**	2.6%
25 REYKJAVIK	19.1%	75 BERN	6.8%	125 RIO DE JANEIRO	2.3%
26 STOCKHOLM	19.0%	76 PORTO	6.7%	126 MALAGA	2.3%
27 LOS ANGELES	18.7%	77 BRUSSELS	6.7%	127 LIMA	2.1%
28 SYDNEY	18.7%	78 CHANGSHA	6.7%	128 BARCELONA	1.8%
29 BOSTON	18.6%	79 VALENCIA	6.7%	129 ROME*	1.8%
30 AUCKLAND	18.6%	80 WUHAN	6.6%	130 TURIN*	1.5%
31 LUXEMBOURG	17.0%	81 MARSEILLE	6.5%	131 NAGOYA	1.4%
32 NEW YORK	16.8%	82 DUBLIN	6.5%	132 HAIFA	1.4%
33 ATLANTA	16.6%	83 MEXICO CITY	6.5%	133 JAKARTA	1.2%
34 GOTHENBURG	16.5%	84 TOKYO	6.5%	134 HYDERABAD	1.0%
35 DETROIT	16.4%	85 LILLE	6.4%	135 ABU DHABI	0.8%
36 WASHINGTON	16.2%	86 HELSINKI	6.3%	136 DELHI	0.5%
37 TORONTO	15.9%	87 ATHENS	6.3%	137 AHMEDABAD	0.3%
38 MANCHESTER	15.4%	88 ZURICH	6.2%	138 NICOSIA	0.2%
39 OXFORD	15.0%	89 TEL AVIV	6.2%	139 BANGKOK	0.1%
40 VANCOUVER	14.7%	90 OSAKA	6.1%	140 BUDAPEST	-0.9%
41 UTRECHT	14.0%	92 CALGARY	6.0%	141 BENGALURU	-1.2%
42 ADELAIDE	13.9%	91 WUXI	5.9%	142 PUNE	-1.5%
43 MINNEAPOLIS	13.8%	93 LYON	5.9%	143 FLORENCE*	-1.6%
44 MELBOURNE	13.7%	94 EDMONTON	5.5%	144 MUMBAI	-2.0%
45 CHICAGO	13.3%	95 JERUSALEM	5.1%	145 CHENNAI	-2.0%
46 OSLO	13.3%	96 LONDON	5.0%	146 PALERMO*	-2.4%
47 ROTTERDAM	12.9%	97 QINGDAO	5.0%	147 GENOA*	-3.3%
48 PERTH	12.5%	98 BEIJING	4.9%	148 DUBAI	-4.4%
49 GLASGOW	12.4%	99 TAIPEI CITY	4.9%	149 KOLKATA	-5.2%
50 VILNIUS	11.9%	100 NINGBO	4.7%	150 VENICE*	-6.3%

Figure 18. Knight Frank Global Residential Cities INDEX, Q2 2021, Source: (Knight, 2021)

---

## Conclusion

Since the 1950s, the causes of poverty and housing shortages in urban Turkey, as well as living conditions, have evolved in response to various political and economic attitudes and actions. However, there is no long-term solution to these issues. In spatial structures and business sectors, cities have been separated based on their origin and income categories. The state made minor interventions in the 1950s, such as developing development plans for urban problems caused by industry, urbanization, and internal migration. According to Egilmez, the relationship that emerged in the 1950s between “migration, poverty, and housing crisis” has been transformed within the structure of various implementations such as “urban planning and natural disasters” in the direction of capital accumulation processes and policies since the 1980s. In this frame of reference, the globalization, neoliberal policies, and economic crises that have occurred since 1980 have caused in worsening income distribution, increased poverty, and socio-cultural inequalities among the country’s many socioeconomic sectors (Egilmez 2010). Local governments have left their administration and service supply to market dominance throughout globalization and the neoliberal approach, and the central and local governments’ economic and social standing have been reduced.

Throughout history, Izmir, like all cities, has had a complicated and dynamic structure. Because of its dynamic nature, it is a city where communities from various civilizations and cultures left imprints and observed various urban challenges over time. Izmir was formed as a result of its importance as a port city and its effectiveness in economic activities such as industry, trade, and the service sector. On-site transformation or displacement activities are carried out in Izmir, as well as throughout Turkey, under the pretense of urban transformation in order to develop new urban zones after the 2000s in areas and districts, both planned and unplanned.

According to urban transformation techniques, mass housing has evolved into regions where slum dwellers are regulated, healed, organized, and individualized through spatial arrangements.

Other major factors affecting housing demand have been identified as household income per capita, housing prices, and mortgage interest rates. The fact that income is one of the most important elements influencing home demand emphasizes the significance of adequate mortgage financing rules. As a result, decision-makers must constantly build effective and fair mortgage finance systems to expand housing ownership.

The housing loan/GDP ratio is dropping from the previous year and remains low in comparison to developed countries. According to a variety of data, Izmir has the highest surplus on the residential property price index. To summarize, all the variables evaluated indicate a housing emergency in the Turkish housing industry.





Figure 19. Quixote Village in Olympia, Washington. Image © Leah Nash for BuzzFeed 2022



## PART 2 TINY HOUSE MOVEMENT



---

## Literature Review: Tiny House Movement

According to (Anson, 2014) and (Ford & Lanier, 2017), significant academic literature on tiny homes has progressively appeared over the last years as interest in this unique housing type has expanded. Rather than peer-reviewed, academically published literature, much of the tiny house study is generally of news stories, blogs, storytelling, and television programs (Ford & Lanier, 2017). Due to a lack of academic literature, to begin with, most of the published material that does exist is based on unpublished resources such as blogs, newspaper stories, and television programs. This creates a gap in the literature and a need for a study to help develop the tiny home movement and the examination of sustainable construction approaches within the built environment. According to existing research, people who downsize to tiny homes have a much lower environmental impact, since they are compelled to reconsider their material consumption (Anson, 2014; Bozorg & Miller, 2014; Ford & Gomez-Lanier, 2017; Kahn, 2012; Mitchell, 2014; Susanka & Obolensky, 2001; Vail, 2016). Despite widespread claims that tiny houses have a lower environmental impact, there have been few academic studies that address this notion in depth, leaving a research void (Anson, 2014).

In this study, Tiny House Movement is examined in 3 titles. The first one is the definition of a tiny house. In the literature: a tiny house has no commonly accepted definition. In general, a tiny house is defined as a compact efficient dwelling, often approximately 400 square feet, that allows individuals to live a more ecologically conscious, financially stable, and minimalist lifestyle. Tumbleweed Tiny Homes, arguably the most well-known tiny home construction company in the United States, builds homes averaging 200 square feet (Tumbleweed Tiny Homes, 2022), which is roughly the size of two parking spaces. A typical tiny house is between 60 and 400 square feet in size. According to the 2018 International Building Code, tiny houses are "400 square feet or less." Tiny dwellings are also far less expensive than single-family homes (Turner, 2017).

---

In addition to size, the construction and mobility of these houses play a role in their classification (Shearer & Burton, 2018). Tiny houses frequently (but not always) display a high-level design aesthetic and thoughtful use of construction materials. Because of the lack of a precise definition, the legal status of tiny homes differs across jurisdictions. This makes it difficult for tiny home builders to determine which codes if any, must be followed (Anson, 2014). Tiny houses can be either stationary or transportable. Tiny houses placed on permanent foundations are subject to tougher building regulations than those built on wheel-beds. Minimum floor area, ventilation and light, and access to utilities and garbage management services are all part of the building regulations for fixed tiny homes (Turner, 2017).

After the first part of the tiny house movement, the motivations for living in a tiny house are explained. This chapter, which is included in many academic articles and student theses in the literature, has an important place in understanding why people prefer to live in a tiny house. In the study of (Mangold & Zschau, 2019), more than half of the interviewees stated their personal reasons for wanting to live more simply, and most of them stated that it was to have more functional homes, make their daily lives easier, and save money in the process. The 'freedom' in the literature encompassed aspects such as having a more flexible schedule and a sense of working less and more control over your life (Olsson, 2020).

Another characteristic motivation of the tiny house movement is sustainability and its relation to the environment is mentioned (Shearer & Burton, 2018).

Additionally, the design and construction of the tiny house is part of the motivation for a variety of reasons, many people who build tiny dwellings choose to do so themselves. They are drawn to the notion of cost savings or because they enjoy making things with their own hands. (Mitchell, 2014).

---

The cost of owning or renting conventional accommodation, a preference for detached dwellings, financial freedom, the possibility to leave or retire from work, moving out of the parental home or sharing houses, and avoiding homelessness were the most common reasons mentioned for choosing tiny house living. Many people used their discretionary funds or employment income to build their tiny house, and they said it was nearly impossible to get bank financing for a tiny house, even if it was on foundations (Shearer & Burton, 2021).

The interview in Olsson's thesis also understood that vague and locally dependent rules make it very ambiguous as a tiny house owner because you become dependent on how the planning department interprets it. For this reason, the fact that many of the participants do not have completely legal housing arrangements supports the difficulties of those living in tiny houses in many literature studies. Challenges include all kinds of challenges related to laws, rules, regulations, policies, and things that affect them on an individual level. Most prominent are legal barriers to zoning and other restrictions on land use (Evans, 2018; Ford & Gomez-Lanier 2017; Mutter 2013; Shearer and Burton 2018). Due to its recent history, there is no legal framework covering tiny homes (Mutter 2013), and it is unclear what regulations should apply to them, as there is no consensus on what a tiny home really is (Evans 2018; Shearer & Burton, 2018). These legal loopholes are generally not definite regulations for small houses, so the difficulties of local government in different countries are usually addressed in academic studies

---

## 2.1 Definition of the Tiny House

Tiny houses have no universally accepted definition, which has caused confusion about how to interact with the structures in line with zoning and coding requirements. These houses are typically built on wheels to compensate for their ambiguous legal status, allowing them to be categorized as trailers or mobile homes. These trailers are then occasionally eligible for RV (A recreational vehicle is a motor vehicle or trailer that is designed to include living accommodations) loans from banks; however, the interest rates and taxes are higher (Mutter, 2013). Although RVs can be moved freely, many RV parks have maximum stay restrictions as well as zoning regulations for water and wastewater facilities. Some tiny houses can be designated as auxiliary dwelling units (ADUs) and placed in the backyards of larger single-family homes, depending on where you live. Because of legal considerations, most tiny homes are now built on private land, limiting the expansion of tiny house communities. (Carras, 2018).

The legal status of tiny homes is fluid and varies among jurisdictions due to a lack of precise definitions, making it difficult for tiny home builders to know which codes if any, they must follow. Tiny houses can be fixed or transportable, and these two broad categories highlight some key distinctions between various forms. tiny houses built on permanent foundations are subject to more stringent building codes than those built on wheel-beds.

The building standards for fixed tiny homes include minimum floor area requirements, ventilation, and lighting requirements, as well as access to utilities and waste removal services (Moslehian & Tibayan, 2021).

The academic literature classifies tiny houses into three types. Tiny homes on wheels (THOWs), micro-apartments, and accessory dwelling units are examples of these (ADUs, which can include THOWs and THOFs).

---

### 2.1.1 Tiny Homes on Wheels (THOWs)

Much contemporary tiny house research is concerned with tiny houses on wheels (THOW) and how they are recognized in local government planning schemes (Shearer & Burton, 2021). Tiny houses as residences are not regular and are difficult to categorize. They were categorized by Shearer and Burton based on three structural (mobility, size, and design) and four sociological characteristics (affordability, sustainability, legal status, and community focus).

While mobile homes, caravans, and THOWs have certain similarities, they are all unique forms. The first and most evident feature, on which every country agrees, is size: tiny houses are small. The maximum size rule varies. According to Shearer and Burton, it must be less than 40 square meters in size. It must be less than 40 square meters in size, according to Shearer and Burton. This must be less than 37 square meters (2018 International Residential Code), according to Appendix Q of the International Residential Code (IRC), a “comprehensive, stand-alone residential code that establishes minimum regulations for one- and two-family dwellings and townhouses using prescriptive provisions and is founded on broad-based principles that allow for the use of new materials and new building designs” (International Code Council) (IRC).

There are also legal reasons to put tiny houses on wheels, as this allows them to escape local rules regarding minimum size limits and other requirements that relate to permanent structures. Because mobile structures are not subject to the same severe criteria as permanent structures, dwellings can be built based on human needs rather than standardized regulations (Mutter, 2013).

---

## 2.1.2 Accessory Dwelling Units (ADUs)

ADUs are fixed houses that can be built on existing lots or commissioned for a specific purpose, such as emergency or low-income housing. ADUs exist in a range of sizes and designs, such as granny flats and bungalows. Although existing planning regulations allow for specific buildings, there is considerable variation between jurisdictions, restricting the diversity of configurations ADUs can take. The integration of tiny houses into existing metropolitan contexts must prioritize housing affordability. This is especially true in large-lot suburbs with declining household numbers, where ADUs are a viable type of urban expansion that can increase an area's residential density (Evans, 2018). Existing residents' attitudes are one of the most significant obstacles to ADU adoption. Relaxing ADU construction regulations will encourage urban densification efforts and assist in addressing housing difficulties faced by marginalized and low-income groups, while also providing an alternate form of dwelling for persons concerned about the environmental implications of traditional homes (Moslehian & Tibayan, 2021).

## 2.1.3 Mobility

Mobility is another major distinguishing trait that is employed in this typology to differentiate between the main kinds of tiny houses that tend to fall into one of three mobility categories; totally mobile (on a trailer base/wheels), a temporary foundation, sled, etc., or permanent (fixed to the ground on a foundation). In terms of typology, partially mobile tiny homes are a subset of mobile tiny homes (since they are movable, and completely mobile small homes are rarely mobile) (Shearer & Burton, 2018).

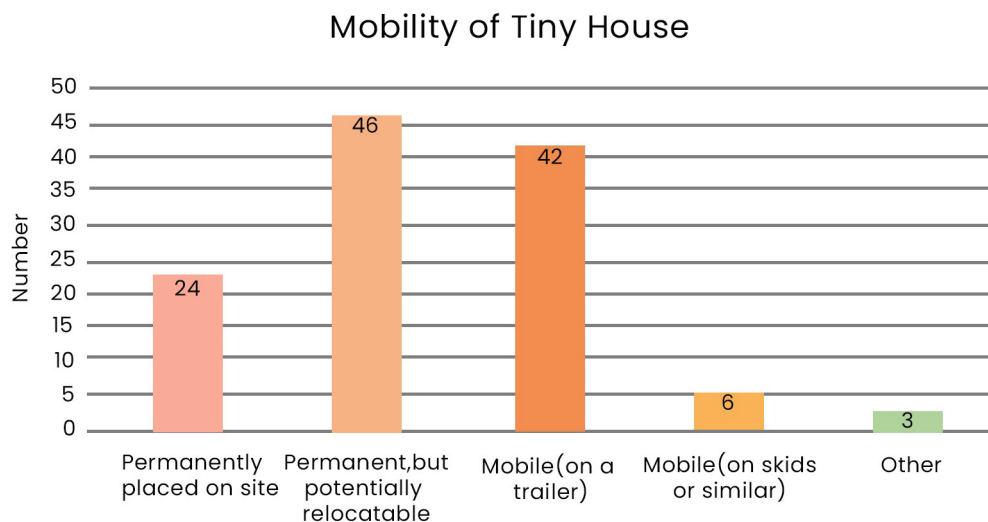
Tiny house rhetoric, in contrast to claims of mobility, offers itself as a counterargument to concepts that create the "mc-mansion" ideal by promising a smaller environmental footprint through less consumption.



---

The drive to “become tiny” is sometimes presented as a defiant response to the neoliberal consumer demands that underpin most structural and zoning restrictions. “The wheels are a nod to a nearly ubiquitous zoning rule that sets minimum square footage standards for free-standing buildings,” according to the article “Building a Green Empire.” (Anson, 2014).

According to Shearer and Burton, (fig. 20) depicts the findings of a 2017 survey conducted in Australia, which revealed that most tiny residences (94) featured some kind of mobility (even if only potential). Among the other alternatives were “Haven’t decided,” “Anything is possible,” and “currently fixed, proposed mobile.” Interestingly, it was discovered that the degree of mobility was closely related to the type and location of the tiny house. Those planning to build a tiny house on wheels selected capital city inner and middle suburbs, while those planning to build a permanent tiny house preferred rural residential or rural regions (see Fig. 21). This is most likely owing to the high cost of land in Australian towns and nations such as New Zealand and Canada.



*Figure 20. Mobility of tiny houses (2017 Survey). (Shearer & Burton et al 2018)*

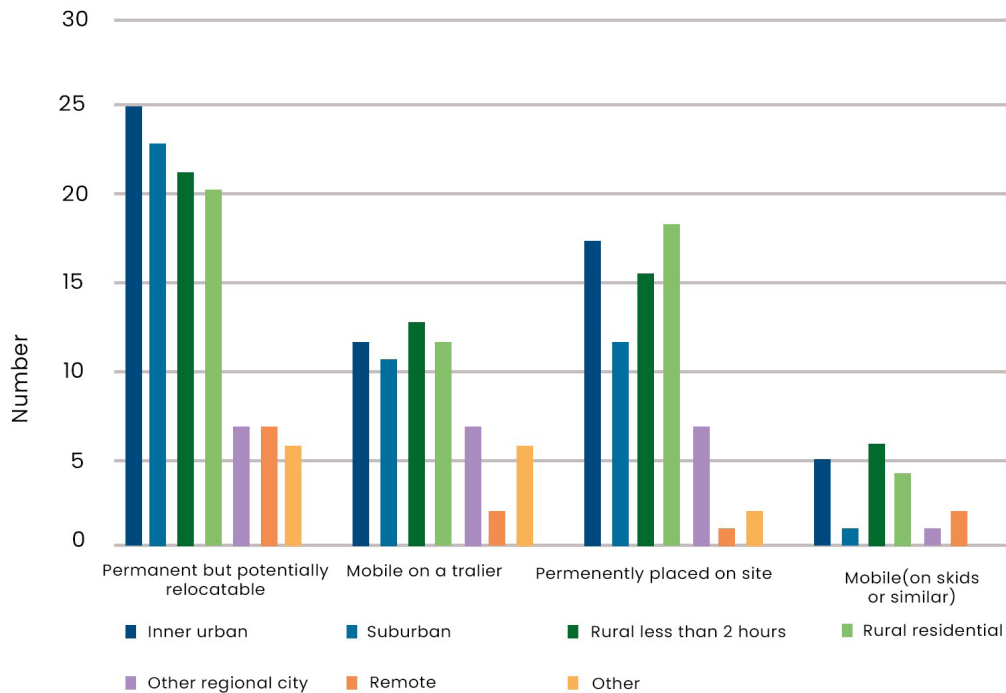


Figure 21. Location of tiny houses (2017 Survey). (Shearer & Burton et al)

## 2.1.4 The Tiny House Movement

The “tiny house movement” has acquired popularity in the public mind in recent years. The movement has been influenced by a better response to “minimizing, de-cluttering, and downsizing,” which comes from the 19th-century romanticism of Thoreau and Emerson (Anson, 2014). The movement’s evolution has also been influenced by the twentieth-century minimalist idea of “less is more.” The fundamental idea of the small house movement is that by reducing their spatial footprint, homeowners may reduce their environmental impact while increasing their affordability. Furthermore, advocates of the movement have expressed enthusiasm for the movement’s ability to address a wide range of housing issues (Ford & Lanier, 2017).

---

The tiny house movement can be defined as both a lifestyle and an architectural trend, as seen by the rising number of festivals, conferences, seminars, television shows, and social media channels related to the idea.

While the tiny house movement as we know it today began in the United States, interest in tiny houses has grown in other countries. To understand the tiny home phenomenon, the structure must be placed within the context of the tiny house movement—a lifestyle movement with concepts and values that go beyond the size of their dwellings. While high-income downsizers are mostly driving the trend, tiny homes are also on the increase (Mingoya, 2015). People from all backgrounds of life are increasingly realizing that a huge house, and the associated high costs, are unnecessary and have a detrimental impact on their satisfaction.

Tiny houses inspired by this movement have functional interiors with convertible couches, creative storage solutions, foldaway tables, sleeping lofts, and small bathrooms (Kilman, 2016). Despite their small size, tiny houses are highly regarded for their aesthetics. Many tiny house fans are opposed to continual consumption and the idea that it will bring happiness; instead, they find delight in experiences and living without excessive financial pressures.

The tiny house movement takes inspiration from a range of sources, including the minimalist movement, 'off-grid' structures, modest living, and the concepts of voluntary simplicity. Several publications, particularly Walker's *Tiny Tiny Houses* (1987), Susanka's *The Not So Big House* (1998), and Thoreau's *Walden*, first published in 1854, have also been mentioned as influences on the modern tiny house movement. According to (Shearer & Burton, 2018), as an example of the small living idea gypsy wagons and mobile homes precede today's tiny house movement as well as the 2008 economic crisis.

---

## 2.1.5 History of the Tiny House Movement

Despite a decrease in family size, the average size of single-family homes in the United States has climbed continuously since the 1950s (Wilson & Boehland, 2005). This growth could be related to the cultural notion that “bigger is better” and that a large house represents high status. Even though family size has decreased from an average of 3.67 people to 2.62 members, the actual size of residences has expanded from roughly 100 square meters (1076 square feet) in the 1940s to 217 square meters (2336 square feet) nowadays. As a result, the average square meter/person has risen from 27.25 to 82.82. As a result of these changes, housing consumption per person is increasing. This is a concern since, despite expanding population and consumption, the available resources are limited (Wilson & Boehland, 2005).

Beginning in the 1990s, the consequences of Reagan and Thatcher’s neoliberal economic policies, as well as the deregulation of the housing finance industry, were felt by the middle classes. Therefore, income inequality grew, housing prices increased, and employment fell. This economic position was fertile ground for change. For example, Jay Schafer’s 1998 founding of the Tumbleweed Tiny House Company had a huge impact on the popularization of the modern tiny house movement and the rise of dedicated tiny house builders (Shearer & Burton, 2018).

These mobile tiny houses emerged as a reaction to restrictive planning requirements, such as necessary consumption limits requiring minimum room and house proportions, connection to utilities, and, of course, land ownership, rather than a desire to travel, as in caravanning. (Mutter 2013; Wilson & Boehland, 2005).

In response to the difficulties and concerns of living in a poorly insulated Airstream for two winters, Jay Shafer designed and built his first Tiny House on Wheels (called “Tumbleweed”) in 1999. He desired mobility while also desiring the benefits of living in something more well-built and felt more like home.

---

His 96-square-foot masterpiece attracted the world's attention, and many people fell in love with it immediately. The contemporary tiny house movement began. Although Jay may argue that he was not the movement's founder, there is no doubt that his actions inspired a slew of others to follow suit and embrace this way of life. Jay considers the actual visionaries to be those who affected him through their books written in the 1970s, such as Lester Walker's *Tiny Houses: Or How to Get Away from It All*, Jane Lidz's *Rolling Homes: Handmade Houses on Wheels*, Sarah Susanka's *Not So Big* series, and Lloyd Kahn's *Shelter* (Morrison, 2017).

Jay Sharfer was not only one of the first designers to build tiny houses commercially, but he also lived in a house for several years. Jay is an active supporter of the small lifestyle and frequently writes in support of changing zoning regulations to allow tiny homes. "I believe people should have the right to live as simply as they want," he says. Following the recent property crash, bank bailouts, and the ensuing economic depression, there has been a surge in demand for well-designed, inexpensive homes and more rational laws." Jay has now devoted his career to helping others build their own workshops and selling digital designs (Schenk, 2015).



*Figure 22. Jay Sharfer and his Tiny House, Photo credit: Tumbleweed Houses*

---

## 2.1.6 Present Situation of the Tiny House

In recent years, the tiny house trend has gained in popularity, particularly in the United States and Australia. As mentioned in the tiny house movement chapter. People's perspectives on sustainable living have changed. The number of belongings is reducing, and it is becoming more popular to share or lease things, which might minimize the amount of living space necessary. This, combined with the need to minimize our environmental impact, makes a compact house a suitable housing option. The degree of natural supportability is also an important condition for calling a stay a tiny house. Another thing to consider is the home's affordability. Moreover, for many people (Shearer & Burton, 2018). Their popularity has been related to economic factors like as housing affordability, a desire among some to live a more ecologically friendly lifestyle, and the opportunity to enjoy greater 'freedom' from some of the social and economic restraints associated with more traditional lifestyles.

Tiny houses are also becoming more popular in non-English speaking countries, particularly in Europe, where they are regularly utilized as a response to rising rental prices. The tiny house movement is less developed in the EU, most likely because most residences are already modest and rental tenures are prevalent. Rolling Tiny House and Tiny House Manufaktur (Germany); La Tiny House and Ma Petite Maison (France); TinyWunderhouse (Romania); and Walden Studio and Woonpioniers (Netherlands) are all European Union-based companies that build tiny houses on wheels (Tiny Wunderhouse 2016; Tiny Houses Consulting UG 2018). In terms of the tiny house movement, Germany appears to be the most active country in the EU (Shearer & Burton, 2018).

There is a lot of tiny house things on social media platforms like Instagram and Youtube nowadays, and one of the most popular videos on Youtube has been viewed 27 million times (Living Big in a Tiny House 2019).

In 2019, the most popular streaming platform was Netflix began airing a reality series about tiny houses called 'Tiny House Nation,' and in January 2020, game maker EA Games launched a 'Tiny Living Stuff Pack' for their popular game The Sims 4 (Olsson, 2020).

In 2020, Business Insider Inc. published an article claiming that undeniably popular during the Coronavirus pandemic and that more than half of Americans would consider living in a tiny home (Zoele,2021; (Business Insider, 2020)).

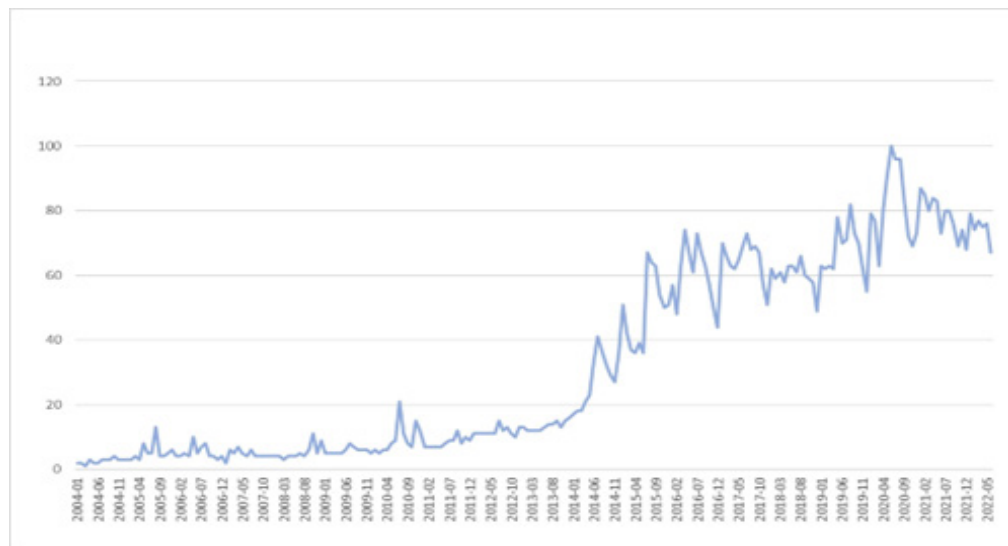


Figure 23. Google trend search on "tiny houses", 2004–2022 (Google Trends 2022)

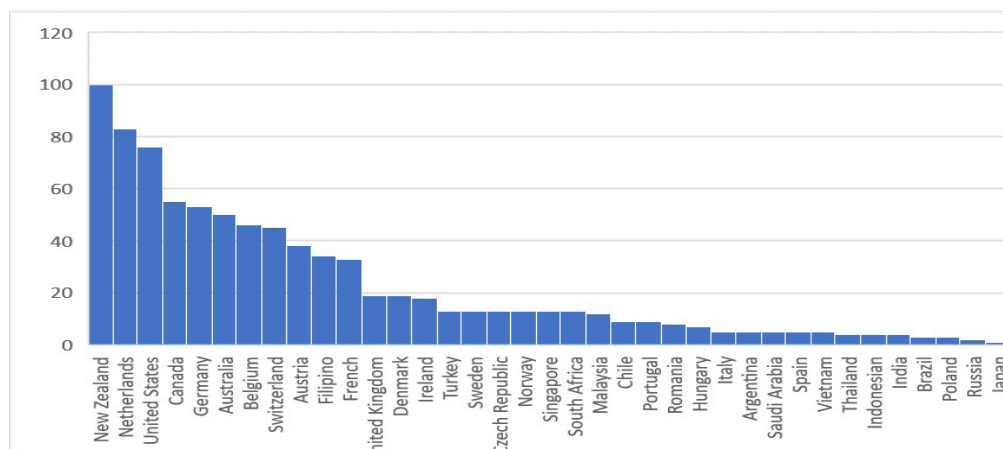


Figure 24. Tiny house searches by country ,2004–2022 (Google Trends 2022)



---

## Conclusion

The tiny house is not a new idea in architecture. Throughout history, bungalows have been used frequently in the form of containers and other small architectural formations. One of the early leaders in the architecture and construction of tiny houses was Frank Lloyd Wright, who wrote a book called "The Natural House" in 1950. Starting from the ideas of Frank Lloyd Wright and other pioneering architects, the modern tiny house movement largely started in the late 1980s and has become widespread in the 21st century.

The 2008–2012 Global Economic Crisis had a negative impact on many countries, and the sudden depreciation of the real estate market in the United States triggered this crisis. People could not pay their housing loans and faced the danger of losing their homes.

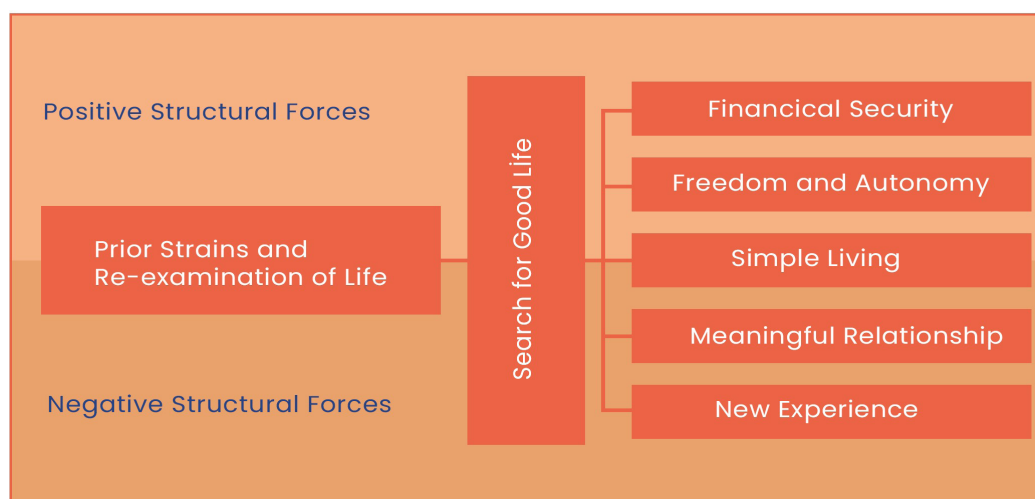
At this point, the ideas of simplification, getting rid of consumption habits and minimalism have come to the fore, and the demand for small houses has increased. A simpler life has not only relieved people economically, but also liberated them thanks to the money and time saved. In addition, since the reduction in square meters provides significant energy savings, an important awareness has been created to protect natural resources. The small house movement known as the "Tiny House Movement" has gained momentum all over the world in line with this awareness and demands. In the spread of this trend, besides the economic difficulties, the convenience provided by the technological developments cannot be ignored.

---

## 2.2 Motivations- WHAT ARE THE REASONS FOR LIVING IN A TINY HOUSE?

According to Mangold and Zschau 2019, there are no systematic studies on people's motivations for living in a tiny house. As a result, they conducted research into the most compelling reasons for people to choose the tiny house lifestyle. The interviewees, according to Mangold and Zschau (2019), had a strong desire for the "Good Life." As a result of their findings, they developed a basic conceptual model, which can be seen in the following conceptual model for the attractiveness of the Tiny House Lifestyle. They argue that the tiny house movement is a modern response to an age-old question: "How does one live a Good Life?" People will use a tiny house lifestyle to create a Good Life. Their investigation into the most important reasons for their lifestyle change uncovered five unique themes: financial security, freedom and autonomy, meaningful relationships, simple living, and new experiences.

The primary motivations for involvement, according to the findings of this study, include a desire for a simpler life, sustainability and environmentalism, cost, freedom and mobility, a sense of community, and an interest in design, while the primary challenges include zoning and legal issues, preconceptions, and, on occasion, a lack of financing.



*Figure 25. Simple conceptual model for the tiny house lifestyle appeal (Mangold & Zschau, 2019)*

---

### 2.2.1 Simple Living

According to the literature, simplicity (or a “simple life”) is a life centered on other aspects of life rather than material possessions. Excessive spending and materialism are also opposed by a simpler way of living. According to the review of literature, consumerism and materialism are frequently portrayed negatively, with terms such as “distaste for the consumerist lifestyle” (Mangold & Zschau, 2019) and consumption as a way of “filling some gap in our lives” (Mangold & Zschau, 2019).

The desire for a simpler life is a typical thread in tiny home media. “Of course, it always comes back to the human drive for simplicity when the financial retail value stuff gets out of the way. I think it appeals to a lot of people” says interviewee Jay Shafer. Tiny houses take up less space, allowing people to own fewer material possessions and consume less. Although it may be tough at first, many individuals who live in compact homes appear to eventually accept the change and value the impact it has on their lives (Mutter, 2013).

All of Mangold and Zschau’s interviewees appear to want a simpler existence in a smaller space. They typically declare that they want to own only what is essential. They want to get rid of their clutter, and everything they’ve ever bought is being scrutinized. There is a disparity in the respondents’ motivations for preferring a simpler existence. Everyone stated their personal interest as the initial rationale, with justifications ranging from simplifying daily living to having a more efficient house to saving money. Some people, however, select this alternative for environmental and personal reasons. This is somewhat less than half, or 43%. They want to be more environmentally conscious and/or reduce their carbon footprint (Mangold & Zschau, 2019).

---

Mangold and Zschau's interviewees expressed the desire to have a house that "worked" for them. Others articulated their motivations for going tiny in a strong desire to live lives that are less "stressful," less "complicated," and more "efficient." For example, Frank asserted that "with downsizing comes efficiency," although Ben and Luna stated that getting rid of "old clothes, old boxes of stuff" made their lives "simpler." It's simplicity and minimalism. That I can't have so much stuff, it gives me another focus in life.

## **2.2.2 Freedom & Autonomy**

The search for 'freedom' was a complicated and varied issue. This alluded to economic independence on the surface, but it also indicated a desire for freedom from day-to-day duty and the capacity to travel, as well as freedom from limits on where one can live or how one's house is built. The most obvious way in which tiny house advocates may be viewed as a minority, counter-cultural phenomenon, popular primarily with old or new 'hippies,' with limited appeal to the majority, as well as an equally small, but more contemporary group of 'hipsters,' with a penchant for authenticity and super-diversity (Anson, 2014).

According to Mangold and Zschau's analysis, 'freedom' was usually connected with spending more time in the literature study (2019). Tiny home inhabitants' independence allows them to spend their time doing what they want and acting in accordance with their principles and beliefs. For some, freedom is synonymous with autonomy, and living in a tiny house becomes a means of combating the culture of debt and needless consumption (Mangold & Zschau 2019; Saxton 2019a). Mangold and Zschau (2019) revealed that respondents felt constrained by their previous conventional lifestyle, which also included working long hours, debt, and spending (Olsson, 2020).

---

### 2.2.3 Sustainability & Environment

Tiny house living is motivated by a desire to live more sustainably, limit overall environmental values and properties, and live off the grid, in addition to the building material. People who live in or create tiny houses are closely associated with environmental sustainability, as well as the desire to limit possessions and consumerism. Traditional house construction can have a wide range of environmental consequences, such as habitat destruction, increased GHG emissions, waste, and the use of nonrenewable resources. Tiny houses, on the other hand, have reduced energy and water requirements, are frequently constructed from recycled or natural materials, and utilize proportionally fewer resources. (Shearer&Burton2018; Carlin 2014).

A tiny house's structure is extremely efficient due to its small surface area. There is less energy usage since there are fewer lights, less room to heat, and fewer appliances than in the average American home.

The national average cost of power per kWh is 12 cents. A typical-sized house owner must spend \$1,532 per year merely to pay for energy. A tiny house dweller, on the other hand, spends only \$109. That's a more than \$1,400 saved (Morrison, 2017).

In an academic thesis, Mary Murphy, a tiny homeowner, categorizes utility systems such as power, water, telecommunications, water, heating and cooling, cooking, and transportation to describe the environmental impact of a house. Based on an assessment of these areas, she claims that the tiny house succeeds in inefficiency not only because of its small size but also because the design is adaptable to the owner's preferences. (Kilman, 2016).

---

## 2.2.4 Building & Design

The emphasis on design and construction distinguishes tiny houses from other types of smaller housing (Ford & Lanier, 2017). Tiny houses are purpose-built structures with a “deliberate use of space, materials, light, and function.” (Mitchell, 2014). They are usually unique, appealing, and imaginative. The tiny house movement is also mainly Do It Yourself (DIY), with design and construction are often done by the person who plans to live in the tiny house. Sometimes it can be communal, with people working in groups to create and share equipment and supplies. Curiously, and in contrast to most other types of construction, women outnumber males in the construction of tiny houses (Mitchell, 2014).

According to the conclusions of the study by Boeckermann et al. (2019), 37.1% of survey respondents expressed a strong desire to live tiny due to an interest in construction and design. This includes designing and building the house to meet their requirements (Mutter 2013). To make the most of a small space, homeowners should be involved in the design process of their tiny house, whether they build it themselves or not (Mutter 2013). For some, the ability to design and build their own home was one of the key reasons they chose to live in a tiny house in the first place (Mutter 2013).

Another benefit of tiny houses is the ability for homeowners to build places that meet their own needs. However, design changes are necessary like eliminating transition zones such as entryways and hallways is a popular strategy to affect house design. Creating open kitchen/dining/living areas also aids in the reduction of interior walls (Wilson & Boehland, 2005). Other designs use furniture that folds into walls, allowing spaces to serve many purposes (Mutter, 2013). Lofting the bedroom area to conserve space is also a popular idea. With the bulk of sleeping rooms lofted, this looks to be the most frequent design in compact homes.

---

Another concept is to encourage efficiencies, such as saving plumbing materials by building the kitchen and bathroom close to each other or saving energy expenditures by preserving light and heat.

Small spaces can be visually improved to make them more habitable by using a variety of ceiling heights, combining colors and textures, and maximizing natural light (Wilson & Boehland, 2005; Kahn, 2012).

*"Building small is not easy"*  
(Wilson & Boehland, 2005)

Understanding the needs of homeowners and then meeting those needs with careful design are required to make small houses work well. Using off-the-shelf house designs may not adequately account for a family's specific needs. Fortunately, there are a multitude of excellent resources on compact house design, some of which include floor plans and elevations. Builders should, however, involve a designer, preferably one with experience in compact house design, to ensure success with small, resource-efficient houses (Wilson & Boehland, 2005).



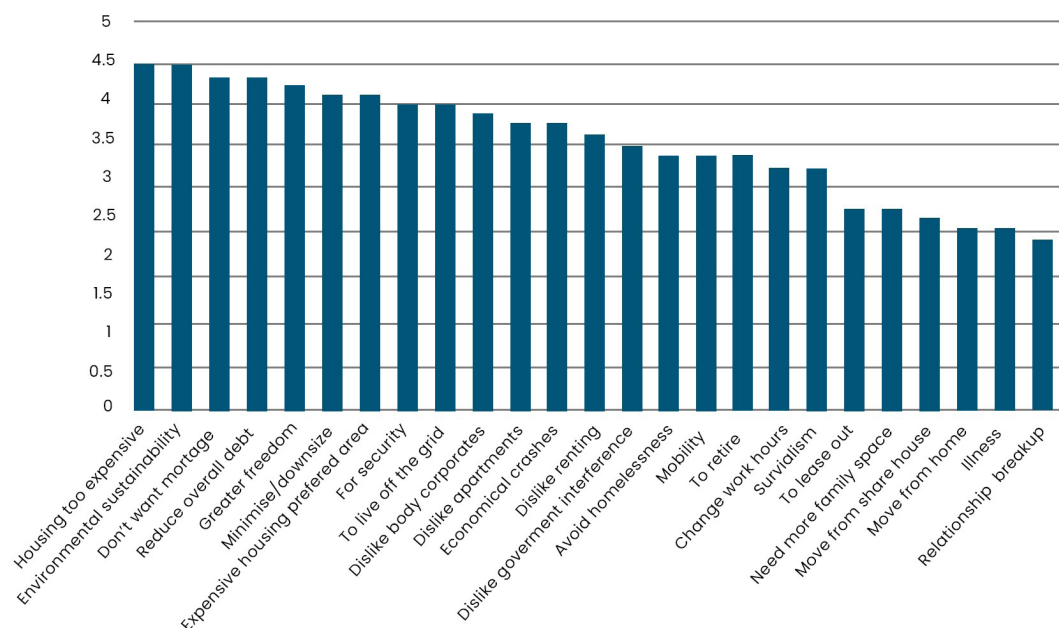
Figure 26. The Lila – Tiny House Source: (indesignlive, 2022)



---

## 2.2.5 Economical Factors

According to Shearer and Burton research (Figure 27), the primary motivation for creating a tiny house is economic, with factors such as cost savings, mortgage reducing debt, and housing affordability. Other research agrees, suggesting that the “biggest incentive for living tiny is saving money” (Kilman, 2016). Tiny houses are regarded as a process for those who have been excluded from the traditional housing market to purchase their own home while even paying off debt. A recurring theme in tiny house media is that “debt consumes time,” therefore reducing debt increases disposable income, acts as a buffer against market crashes and lowers the risk of future energy, water, and food shortages. Tiny houses can give their owners more career freedom and allow them to retire earlier (Shearer & Burton, 2018).



*Figure 27. Main drivers for building tiny houses Source: (2017 survey) Shearer & Burton 2018*

According to the (figure 27) the financial advantages of living in a tiny house extend far beyond the initial cost savings. Consider debt: getting out of debt is extremely difficult, if not impossible when your mortgage/ rental costs are high and your income is proportionally low.

---

At the end of the month, there is usually not enough money left over for anything other than minimum monthly payments. Tiny houses are the perfect remedy for addictive shoppers. Tiny houses clearly lack the physical capacity for people to collect unnecessary items, which is a good opportunity not only for the environment but also for the budget. People saved thousands of dollars by not buying things. On the other hand, Tiny houses can provide the owner with more work flexibility, allow for earlier retirement, and may even produce an income by subletting them for short-term tourist lodging, such as Airbnb.

As indicated by the literature study, financial motivation has several facets, with some expressing a desire for “financial freedom” (Mangold & Zschau, 2019). Others express a desire for “affordability” (Saxton 2019a) or “financial security” (Boeckermann et al. 2019). Saving money and reducing expenses have been identified as the most important motivation among tiny house residents in at least two research reports (Kilman 2016; Shearer & Burton 2018).

Tiny house living is motivated by the ability to become a homeowner at a low cost (Boeckermann et al. 2019), whereas Carras (2018) writes in her PhD thesis that “nearly all participants cited financial freedom as the key incentive for adoption of the tiny house.”

## **Conclusion**

To understand the main motivations of the people involved in the tiny house trend, one of the primary goals was to identify the motivations behind the move to a compact lifestyle. This section explores several drivers that are frequently mentioned in literature and interviews. Although the figures differ in some academic studies, in general, the sub-titles determined above have been the most important motivations within the tiny house movement.

---

## 2.3 Challenges

The sources reviewed for this chapter confronted similar motives in addition understanding these issues is critical because addressing them can make tiny houses more accessible to a larger range of people. While these problems will be better defined as the movement evolves, one respondent feels that increased participation will help overcome many of them, such as increased resource networking, more open-source use of designs, and increased accessibility and openness of building codes and more critical issues candor regarding the difficulties of tiny house living.

### 2.3.1 Legal Barriers

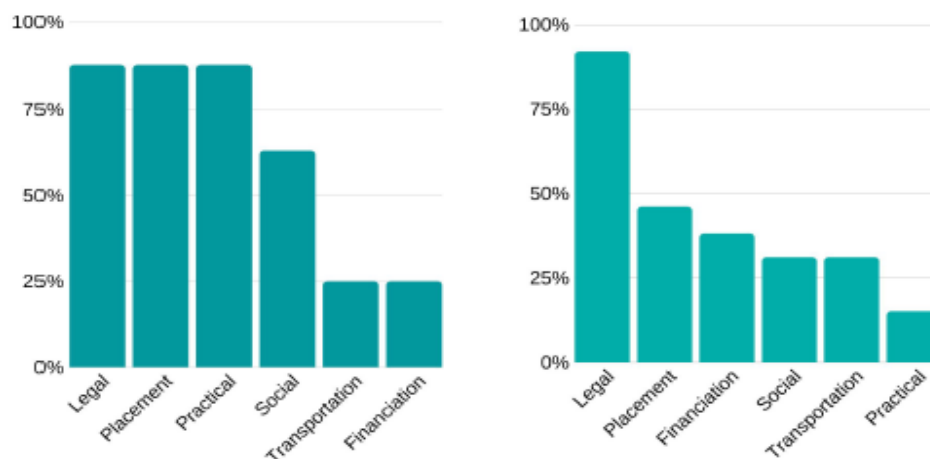
Legal challenges encompass any form of challenge relating to laws, codes, regulations, policies, or anything else that has an impact on an individual level. The most prominent in the literature are legislative impediments in the form of zoning and other land use limitations (Evans 2018; Ford & Gomez-Lanier 2017; Mutter 2013; Shearer & Burton 2018). Because of its recent history, there are no legal frameworks protecting tiny houses (Mutter 2013), and because there is no agreement on what a tiny house is, it is unclear what regulations should be applied to it (Evans 2018; Shearer & Burton 2018). These legal grey zones frequently lead tiny house owners to “fly under the radar” or rely on legal loopholes, putting them in conflict with regulators or neighbors.

According to Evans (2018), zoning has switched from solving urban problems related to safety and dangers to protecting private property values. People who desire to build a tiny house in a certain location may face opposition from neighbors who believe it will reduce the value of the neighboring properties (Evans, 2018).

---

As a result, zoning rules influence where tiny house owners can place their homes, frequently necessitating them to be in located rural locations with less stringent regulations (Saxton 2019a). This means that tiny home residents are limited in terms of where they can live and may have to commute for extended periods of time (Brown 2016; Carras 2019; Saxton 2019a).

Olsson categorizes the challenges gathered from the interviewer and the literature (figure 28) into six categories: legal, placement, practical, social perceptions, transportation, and financing and insurance. In these figures, we can observe that, while four challenges were mentioned by more than half of the interviewees, only one challenge was discovered in more than half of the literature. The graphs also reveal that the practical challenge is lowest in the literature but highest in the interviews.



*Figure 28. Frequency of challenges in the interviews (Left) and in the literature (Right). Presented with the most common challenge to the least common in a falling order from left to right in both the diagrams. Source: (Olsson, 2020)*

Many sources treat this component independently from the legal obstacles, even though the placement challenges are largely tied to legal issues (Brown 2016; Hutchinson 2016; Keable 2017; Kilman 2016).

---

This is because it is allowed to live in permanent tiny residences but doing so typically puts significant restrictions on where you can live. Tiny house owners often live in one of four places: (1) on their own land, (2) in the backyard of a friend or neighbor, (3) at an RV park, or (4) in a tiny house community (Kilman, 2016).

### **2.3.2 Role of the Government**

Tiny houses encounter a variety of institutional impediments, despite their approval in some localities. Fixed tiny houses, for example, can be legally erected or put on residential land as accessory residences in Australia. Mobile tiny houses on wheels, on the other hand, are often categorized as caravans and have restricted durations of occupancy, sometimes as little as two weeks. To add to the complication, the rules governing tiny houses varied between municipalities and states. The most common reasons cited for people not developing or acquiring a tiny house were institutional impediments (Shearer, 2015).

Even in the United States, the “home of tiny houses” is not normally permitted in most areas, although recent legislative efforts include a tiny house appendix in the International Residential Code (IRC). Nonetheless, many tiny houses (particularly tiny houses on wheels) are frequently parked semi/illegally in metropolitan areas or placed on rural estates where neighbor complaints are less of an issue. This is crucial to the typology since the legal status of a tiny dwelling varies depending on the kind.

In Nederland, the Dutch national government has general regulations and norms to which the initiatives must conform in Nederland. A building code is a set of national laws that specify the requirements of constructed objects, whereas a local zoning plan determines how a specific plot, land, or region can be used and is built by a local authority. Local governments, the level of Dutch government most closely associated with tiny house initiatives, must also add the national regulatory framework.

---

Local governments' facilitative roles include facilitation through network structuring and facilitation through process management. Mobilizing citizens and developing a positive framework of domain-specific formal and informal rules are all part of network facilitation. National, provincial, and local laws and statutes are regarded as an exogenous condition for local governmental officers (Ruiter, 2020).

Also, formal and informal domain-specific rules can sometimes influence the initiative's intracellular conditions. Because facilitators can structure the network by developing or changing these domain-specific rules, they play an important role in facilitation by network structuration. An altered zoning plan could be an example of this in the case of tiny houses. The local government can use this to cultivate a favorable environment for a collaborative effort between the government and an initiative.

### **2.3.3 Tiny House Appendix Q International Residential Code**

The International Code Council (mainly applicable in the United States) has approved a Tiny House Appendix (Q) to the IRC (ICC 2017; ecobuilding.org. 2017). Appendix Q, on the other hand, does not become part of the IRC until specifically adopted by a State or County building authority. Appendix Q has been accepted in one county in Colorado and one in Idaho thus far (Tiny House Build 2017).

The IRC is comparable to the Australian National Construction Code (NCC) in that it addresses issues such as health, safety, and energy conservation in the construction industry (ICC 2017; ABCB 2018). The ICC argues that the inclusion of tiny houses in the IRC is necessary because "the issue of small houses and apartments is essential" and requires a more comprehensive response (ICC 2017). It includes general information on the resource use and energy consumption of tiny houses vs regular housing, as well as cost savings and the benefits that tiny houses (as inexpensive housing) may provide to cities. The inclusion of tiny houses in the IRC intends to address the critical need for standards and norms for both mobile and fixed tiny houses (ICC 2017; ecobuilding.org. 2017).

---

Despite this shift in policy, tiny houses remain an outlier in most nations, both in terms of legal status and as a conventional dwelling type. Presently, most Australian local and state governments are conservative and unwilling to disrupt the status quo. In contrast, over in the twentieth century, several Australian governments actively attempted to regulate alternative homes and tenures, particularly intentional communities (Crabtree, 2018).

As mentioned in (Moslehian & Tibayan, 2021)s report, the regulations governing the construction and occupancy of tiny homes include building standards for the structure itself, planning schemes for amenity and land use, and traffic regulations due to the mobile nature of THOWs .Most building codes and planning schemes in Australia exclude tiny houses. The ability of tiny houses (THOWs and THOFs) to meet many performance criteria is revealed by analyzing their compliance with the regulatory framework. However, several factors necessitate novel performance solutions and/or changes to existing regulatory codes, including the compact nature of tiny homes, the need for universal design to enable aging in place, and the moveability of THOWs.

While this evidence review shows that tiny homes on permanent foundations (THOWs) face stricter construction regulations than those built on wheel-beds (THOFs), some current regulatory requirements, particularly for ceiling height, stairways, and environmental performance, remain unattainable for THOW design. Due to the strong desire of tiny house residents to live in their homes permanently, contends that the Australian regulatory framework should integrate tiny home standards into the Building Code of Australia (BCA) to offer a potential path to permanent dwellings of tiny houses in all states and provinces.



### 2.3.4 Financial Barriers

Along with property and legal considerations, a lack of finance is sometimes a huge barrier for many people who want to live cheaply but lack the funds to get started. Because the tiny house industry is still in its early stages, financial alternatives to assist offset the cost of purchasing a small home are limited. As a result, most of the cash for a small house must come from one's own budget. Because many Americans do not have \$30,000 in the bank, purchasing a small property appears to be more feasible for those few who have the necessary beginning cash and resources. \$30,000 for a house is a little sum of money when compared to the median price of homes in the United States; but most of those mainstream properties are financed with a 20% or less down payment. Popular government home loaning programs from the Federal Housing Administration and other agencies even lend money with as little as 3.5 percent down for some borrowers, so the upfront cash required to buy a mainstream home is frequently much less than that required to buy a tiny home, despite its lower price tag. <sup>19</sup> To be sure, living debt-free is enticing for some in the aftermath of the 2008 subprime mortgage crisis, so purchasing a tiny house is beneficial (Kilman, 2016).

According to Brokenshire, the relatively low number of mortgages supports the idea that the concept of homeownership has altered since the global financial crisis of 2007–2008. Following an era of economic boom, increased demand for larger dwellings, and an increase in homeownership proportions, people became increasingly aware of mortgages and their unsustainable lending.

The many articles underline that if living in a tiny house on wheels were regulated, various economic barriers would be removed because tiny homes are easier to finance and insurance when they are recognized as legal. The adoption of tiny house design standards should boost the number of financial institutions willing to make a loan (Brokenshire, 2019).



Figure 29. Tiny Housing in Twente @TinyFind 2022

## **PART 3 TINY HOUSE AS POSSIBLE POLICY STRATEGY TO ADDRESS HOUSING EMERGENCIES: INTERNATIONAL CASES**

---

---

### 3 Tiny House as Possible Policy to Address Housing Emergencies: Conceptual Model

When tiny homes were used as temporary shelters following the 2007–2008 global financial crisis, they became popular as economical housing choices. This low-cost housing option was later adopted as a tactic to reduce homelessness across the United States. With the supply of affordable housing decreasing and more residents being cost-burdened or spending 30% or more of their income on housing, tiny homes are a popular trend not only for providing cheaper housing options but also for offering traditional neighborhood designs that are sustainable and support minimalist living trends. However, the emergence of tiny homes as a new type of strategic housing intervention raises various challenges concerning their purpose, efficacy, and policy feasibility.

The general effectiveness of tiny homes as a feasible housing remedy to satisfy the needs of persons experiencing homelessness is still being researched. It is critical to comprehend the need for inexpensive housing by providing context for the reasons of housing insecurity, current needs for persons suffering homelessness, and methods targeted at providing transitional housing as an affordable housing alternative, such as tiny houses.

As stated in the previous part of the thesis, one of the biggest motivations of the people living in tiny houses was stated as house expenditures and housing prices. Cities across the United States are turning to tiny homes as a creative solution to the shortage of affordable housing to address the affordable housing crisis. Tiny homes provide an affordable alternative to renting or buying in the traditional housing market because they do not require a down payment, mortgage interest rates, or high development, land, and operating costs.



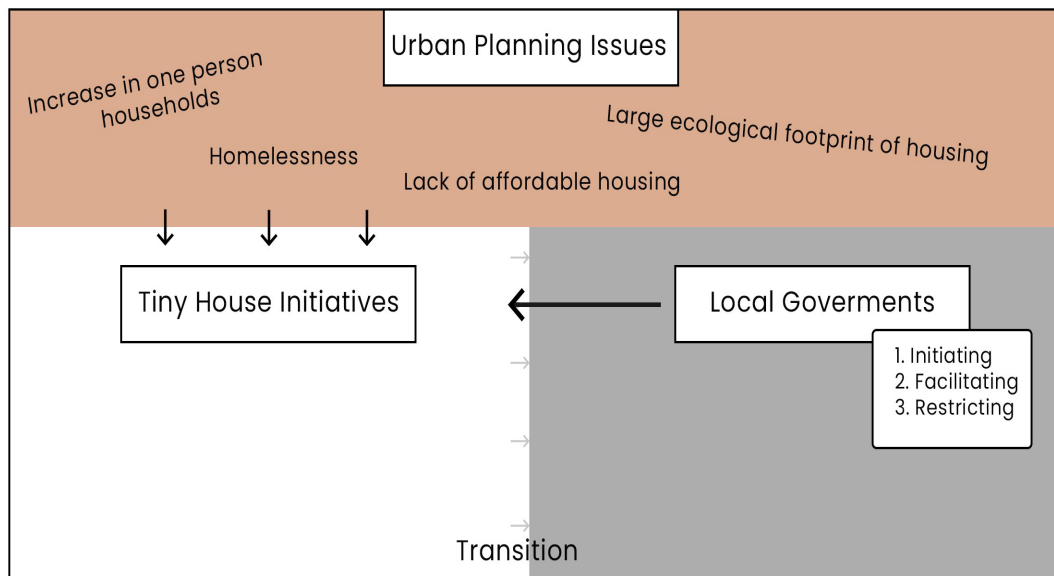


Figure30. Conceptual Model Source : (Ruiter,2020) Illustrated by author

While supporters of tiny homes argue for widespread acceptance of this smaller housing unit in the housing market due to its affordability, opponents of tiny homes question whether affordability is an accurate description of tiny homes (Trambley2021). A conceptual model is created to methodically organize and highlight relationships between the topics mentioned (figure 30). The model is read from top to bottom and left to right, beginning with local urban planning challenges. Homelessness, a shortage of cheap housing, the massive ecological impact of housing, and the increasing proportion of one-person homes are cited as instances of urban planning concerns. It is important to remember that these are examples of urban planning concerns and that this is only a small sample of the planning issues that can be addressed by tiny house projects in many nations. There are purposefully placed dots to encourage individuals. There are purposely placed dots to inspire people to consider other concerns that could be solved with tiny houses.

---

Based on the state of Oregon and the Dignity Village's terminology recommendations (Dignity Village is a membership-based community in Portland, Oregon that has been providing off-the-street shelter for 60 people per night since 2000) In evaluation, the statute would look like this: A municipality may grant permission to establish a campground within an urban growth boundary for the purpose of providing temporary housing accommodations. Separate facilities for use as living units by one or more individuals or families may be provided. The person or entity establishing the accommodations must provide access to potable water, toilet, bathing, and cooking facilities, which can be done either individually or communally. Parking and walkways may also be provided as needed by the accommodations. Temporary housing accommodations described in a subsection of this section are only available to people who do not have permanent shelter. A municipality may set a time limit for an individual or family to use the accommodations. Temporary housing accommodations described in a subsection of this section are only available to people who do not have permanent shelter. A municipality may set a time limit for an individual or family to use the accommodations. Private individuals, nonprofit organizations, or municipalities may operate campgrounds that provide temporary housing accommodations as described in this section( Turner, 2017).

There are arrows leading from the top area of the model to the tiny house efforts; this component of the model depicts the motivations for various tiny house initiatives. The role of local governments in tiny house initiatives is indicated by the arrow pointing from the right side of the figure. These governments can begin, encourage, or hinder the growth of tiny houses, making them an essential factor in this paradigm.

---

### 3.1 Micro village

Micro-villages are intentional tiny home communities that reflect a combination of the tiny house and tent city movements. These communities are emerging as one alternative for giving those facing homelessness permanent and transitional homes. Micro-villages frequently have up to 30 tiny homes and shared community areas. They can range in legality from sanctioned, publicly financed communities to unofficial, impromptu shelter gatherings.

Micro-villages (communities of free-standing tiny houses), like individual tiny homes, can provide a much-needed kind of housing. Thousands of individuals across the country are unable to find shelter or accommodation. According to the January 2015 Point in Time Count of Homelessness, 564,708 people (almost 0.2 percent of the population) were homeless in the United States on one night in January (U.S. Department of Housing and Urban Development, 2015 b). Housing insecurity is prevalent, ranging from chronic homelessness (more than a year of continuing homelessness or at least four periods of homelessness in three years) to persons who may only encounter one incident of housing insecurity (U.S. Department of Housing and Urban Development, 2015 a). Nonconventional forms of housing and shelter can provide imaginative housing solutions for the almost 600,000 people who cannot afford or access homes for other reasons (Brown, 2016).

Showers, laundry, a kitchen, and restroom facilities are available in the communities where the houses are located. The tiny houses are not as 'beautiful' or luxurious as those portrayed in the media, but for many homeless people who are used to sleeping in tents, these tiny houses with electricity, overhead lighting, and a heater are far more secure than their tents. The houses are viewed as a chance for homeless persons to reclaim their dignity and start a new life (Ruiter, 2020).



---

Micro-villages are not for everyone, but they have the potential to give much-needed homes and shelter to thousands of people experiencing housing security or homelessness. The micro-village model also provides a vital source of community and a “sense of belonging” to residents who might otherwise have been excluded from mainstream communities (Brown, 2016)

Having an idea for tiny houses as a solution to numerous housing issues does not mean that it can be executed straight immediately. Following Europe’s recent decentralization trend, local governments now have a larger role in addressing local issues. Local governments, often municipalities, make decisions on zoning plans and local problem solutions in the Netherlands, as well as applying national legislation to local decisions (Ruiter, 2020).

These intentional communities of tiny homes are constructed on private property owned by an individual, collectively managed as part of a cooperative agreement, or controlled by a holding or development firm. Formal villages are typically designated as planned urban developments, which necessitate variances from the local zoning authority. The organizational structures of the villages can resemble the top-down structure of a trailer or RV park or a co-op with a board and shared maintenance tasks (Mingoya, 2015).

Once established, the biggest challenge to the long-term viability of these houses is financing. Eighty percent of tiny house villages for the homeless are established on public property, and sixty percent are funded entirely by contributions. While the private market for tiny homes is strong and rising, with cities across the country permitting micro-unit development, it is unknown how long the cultural infatuation with tiny homes will continue.

---

## 3.2 Housing Crash Builds a Tiny Community

Housing costs in the United States increased at the same rate as inflation for more than a century, until 1995. Home values increased by 70% between 1995 and 2007, when adjusted for inflation. Real estate prices had accumulated so much equity. People began to reorganize their debts in order to liquidate their unexpected wealth.

Many others went on the biggest shopping spree of their life, forgetting to save money. Simultaneously, banks got on board and began offering three-year adjustable-rate mortgage (ARM) loans with ultra-low interest rates. The future of real estate appeared to be so bright that millions of otherwise unqualified homeowners were authorized for these attractive loans. However, trouble was building, and when the real estate bubble burst, millions of middle- and lower-class homeowners found themselves in deep financial water with no life preserver (Morrison, 2017).

Over an eight-year span, more than 9.3 million homeowners lost their homes to foreclosure or distress sales. The economy is growing now, and the real estate market appears to be on the mend.

Experts predict that less than one-third of people who lost their houses will re-enter the mortgage market. It's no surprise that interest in tiny houses is at an all-time high. They provide comfortable, safe, and beautiful accommodation at a tenth of the cost of a traditional-sized home. The idea of homeownership, which had previously been refused by many, is now once again within reach (Morrison, 2017).

---

### 3.3 Housing Crisis and Housing Emergency in USA

The 'hyper-commodification' of housing and the normalizing strategies used to promote homeownership highlighted the 2008 housing crisis (Immergluck, 2009) as people exploited risky lending schemes to buy homes, they wanted but couldn't afford. Policy interventions were justified by social norms associated with home ownership, because policymaking and the formation of social norms around ideal and aspirational ways of being housed reinforce one another, according to Drew and Herbert (2013). During the housing crisis, the promise of wealth accumulation and social benefits from homeownership was exposed as a fallacy. Drew and Herbert (2013), for example, suggest that policy interventions that provided lower-income individuals hazardous access to housing were intended to expand mortgage lending rather than to create long-term homeownership opportunities.

Many people have been affected by financial insecurity, high debt, job loss, and reduced income as a result of the economic and housing crisis. Many of those who remained homeowners bore the burden of maintaining this lifestyle in the face of dire conditions (Drew & Herbert, 2013). As a result, homeownership became synonymous with the forces undermining the US economy and causing havoc on global capitalism. Nonetheless, by 2013, the 'recovery' of the property market was lauded in politics and the media if the key policies that supported it remained in place. Housing as an investment was promoted once more, and the American dream was said to have recovered (Shlay, 2015).

However, as Madden and Marcuse (2016) argue, the modern housing system is inherently unsustainable. The affordable housing crisis is the result of neoliberal policymaking operating as it should (Madden & Marcuse, 2016). Housing expenses continue to rise due to rising property values, while income growth remains stagnant, resulting in gentrification, displacement, homelessness, evictions, and other negative consequences.

---

As a result, despite the post-recession 'recovery,' the housing issue persists. Indeed, homelessness is increasing in the world's wealthier regions, such as North America and Europe, while the fastest growing cities in the Global South are experiencing the worst (Carras, 2018). Unaffordable housing markets are not solely a feature of megacities (e.g., Hong Kong, London, and New York), but also affect smaller cities such as Manchester, Barcelona, Rome, Stockholm, Birmingham, and Leeds.

Cities are unable to produce required housing stock due to tight land-use rules, geographic limits, as well as urbanization, company relocations to city centers, and corporate real estate investment resulting mostly in homes for the ultra-wealthy. This housing crisis has resulted in the emergence of new forms of alternative housing, such as communal housing in Stockholm, collaborative housing in Auckland, co-housing in Hamburg and Gothenburg, container homes in Australia, straw bale homes in the United Kingdom, and micro-housing (tiny houses) in the United States. This perspective situates the tiny house movement within the global housing crisis and connects this research to broader analyses of housing crisis responses

---

### 3.3.1 Motives for Americans

Boeckermann, Kaczynski, and King (2018) researched the motives and contentment of tiny home occupants in America for the Journal of Housing and the Built Environment. In 2017, they performed a Tiny House Community Survey to investigate motivations, living arrangements, and satisfaction. They reasoned from this that the primary reason for Americans to live in a tiny house is the expense. This motivation received the highest rating from 71.9 % of those surveyed. Charlie Kilman,( 2016) says in Carleton College's Undergraduate Journal of Humanistic Studies that saving money is the most motivating factor.

People, he claims, prefer to own their own homes, no matter how little. Tiny houses are a wonderful option for many people in this regard because they are less expensive than "normal" houses. Following the economic considerations is a desire to live more simply and with less consumption. Freedom and independence are ranked third. It is interesting that exactly half of those polled claimed that sustainability and environmental effect are major motivators for transitioning to a compact dwelling, while the other half do not.

Less than a quarter do it for empowerment and a sense of community.

Another interesting finding is that the people who are most pleased with their tiny house have a simple lifestyle as a primary motivator. This motive is the only one associated with respondents' pleasure in their homes (Boeckermann et al, 2018).



---

## Case Study 1- Beloved Community Village, Denver CO



*Figure 31. Beloved Community Village ©Radian*

Location: Denver, Colorado in historic Globeville

Year: 2017/2018

Organization: Colorado Village Collaborative  
(CVC)

In response to Denver's housing crisis, Radian collaborated with the Colorado Village Collaborative to move forward and scale innovative solutions for housing disadvantaged members of the community. Beloved Community Village, a tiny home village for homeless people, was founded in July 2017 in answer to the need to house people in a temporary and transitional way so that they can take the next step toward permanent affordable housing.



---

The village is mainly composed of 11 (8'x15') houses, a common bathing unit (with two showers, two hand sinks, and two toilets), and a community area for 15 people. Radian built Beloved Community Community to be off the grid while also being responsive to the residents' electricity, sewage, and fresh water demands because current zoning code required the village to be transitory.

The buildings were designed to be easily deployable and transportable while yet fulfilling building code requirements. In comparison to the high rates in a typical shelter system, the village has witnessed absolutely no turnover in residency in the first two and a half months. Since its inception, the RiNo, Cole, and Curtis Park neighborhoods have welcomed the community with open arms. Currently, 12 of the 15 members are employed, with four of them finding work since arriving to the village (Beloved Community Village, 2022).



*Figure 32. Tiny Houses in Beloved Community Village ©Radian*

---

## Case Study 2–Boneyard Studio, Washington DC



*Figure 33. Boneyards Studio ©Boneyard*

Location: Wastington DC, United State

Year: 2012

Organization: Boneyard studio

Boneyard Studios began as a group of four modest residences built on a small, undeveloped alley in northeastern Washington, DC, by Lee Pera, Brian Levy, and Jay Austin. In 2012, Washington, D.C. residents were introduced to the tiny house movement as an experiment in simplicity, sustainability, and creative urban infill. By promoting community, cooperation, and collaboration, Boneyard Studios emphasizes the importance of social sustainability in the tiny house movement. Even though each house is less than 220 square feet, they were all constructed jointly.

The village, which touts itself as a “tiny house community” (Boneyard Studios, 2016), also has communal amenities like an organic garden with 16 fruit trees, 10 4-by-8 vegetable plots, and various herbs and flowers, as well as a 250-gallon cistern to irrigate the garden.

---

Boneyard Studios' community-mindedness is emphasized in its mission statement, which states that the village's goals include helping other tiny home builders and "modeling what a tiny house could look like" to the larger community. Community organizations include a tiny house building lecture series and open houses to demonstrate the viability of tiny house communities in meeting the need for sustainable, affordable urban dwelling. Each of the first Boneyard Homes is unique, showing the tiny house's adaptability and the opportunity to shape each house to its owner's preferences while still supporting the objectives of sustainable living. Two of the homes feature rainwater collection systems, while two others have solar panels. The aesthetics of the tiny dwellings range from the rustic cedar sided Pera House to the cubic futuristic style of Brian Levy's Minim House. The latter small house got the Merit Award from the American Institute of Architects Washington, D.C. branch in 2013, as well as the Washington Award of Excellence in 2015. The sizes of the dwellings range from 140 to 210 square feet (Ford & Lanier, 2017).



*Figure 34. Minim House © Inhabitat*



---

A structure in Washington, D.C. must be at least 400 feet tall in order to be livable. Due to this law, the houses in Boneyard Studios are not appropriate for full-time dwelling. The dwellings are entirely on wheels and built and moved in on trailers because the adjoining alleyways are less than 30 feet wide (preventing suitable access by emergency vehicles). Campaigning for changes to building and zoning restrictions is part of Boneyard Studio's outreach.

The homes will be used as a model for a full-time small house community until the restrictions change. The Boneyard Studio has suffered from a reliance on communal resources rather than designing each house to be completely self-sufficient. As of 2015, disagreements about land ownership, economics, and the use of common resources had separated the original founding group (Ford & Lanier, 2017).

### **Case Study 3- First Community Village-Austin, Texax**



*Figure 35. Community First Village*

Location: Austin, Texas

Year:2016

Organianon: Loaves & Fishes



Figure 36. Site Plan of Community First Village

The Village is a 27-acre master planned community in Central Texas that provides affordable, permanent housing as well as a supportive community for the disabled and chronically homeless. This community will include four phases. Phase II, which began construction in the fall of 2018, consisted of a 24-acre expansion (totaling 51 acres) with 310 houses (210 tiny houses and 100 RVs) to be completed over three to four years. Mobile Loaves & Fishes hopes to generate \$60 million for the remaining phases through a capital campaign.

MLF collaborated with a land planner at Bury, Inc. (now Stantec) to design the site. MLF sought a “feeling” of community at both the macro and micro levels. The problem was to adapt this community concept to real-world topography and constraints such as wastewater access and flood plain. Community First center’s construction of this hospitality center began in the summer of 2016. The village includes an innovative mix of affordable housing options, places of worship, study, and fellowship, a Memorial Garden, prayer labyrinth, and columbarium, a community garden with fruit- and nut-bearing trees and vegetables, also a medical facility for health screenings, and other support services such as hospice and respite care, a medical facility for health screenings, and other trails for walking, there is an outdoor theater and a bed & breakfast for mission trips. capital metropolitan authority bus station and WiFi Activated across the complex (Austin Case Study, 2017).

---

## Case Study 4–Tiny Home Village in Albuquerque

Bernalillo County and the City of Albuquerque have partnered aiming to create New Mexico’s first housing project of its kind. The Tiny Home Village initiative, which was completed in January 2020, intends to help persons who are homeless. The proposed construction project was up to proposals from construction companies. Epic Mountain Construction of Albuquerque won the proposal to build the \$3.5 million project. In August 2016, the county and city proposed a single-site community with a neighborhood of tiny houses. The goal was to assist the homeless in reintegrating into society. The tiny home project was funded by a \$2 million obligation bond authorized by voters in November 2016.

More than 40 properties were explored as potential housing community locations, but they were cut down to six that were offered to the public, who then assisted in determining the development site.

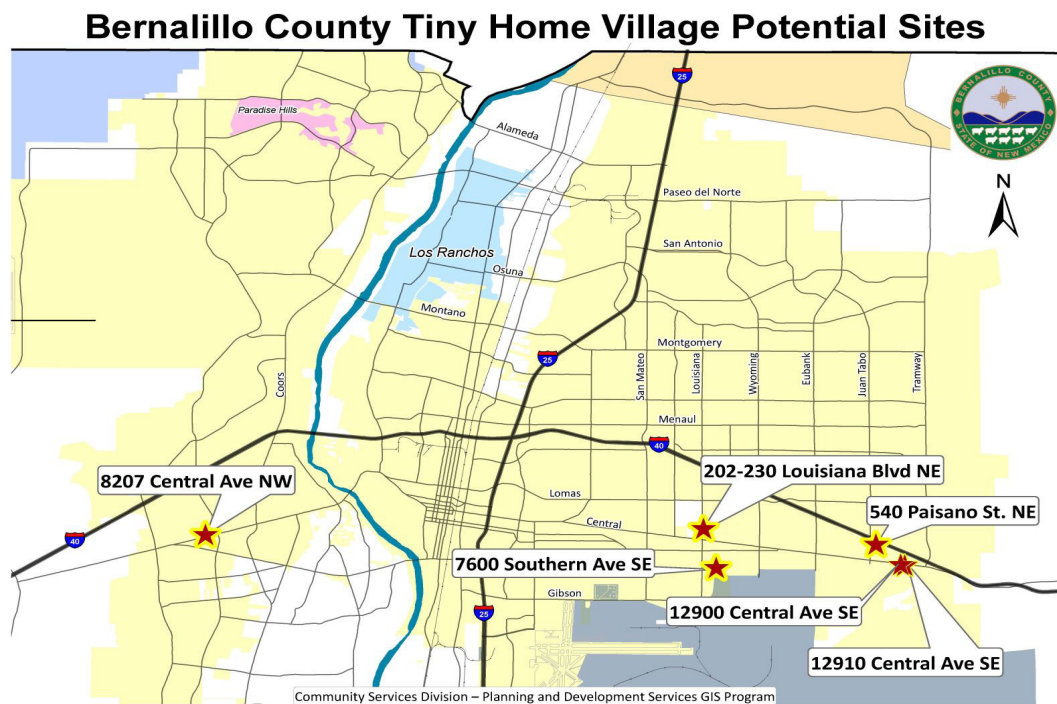


Figure 37. Bernalillo County Tiny Home Village Potential Sites “

---

The county and city started to work with the Albuquerque Indian Center, a non-profit organization that has been fighting poverty for 19 years, on the final design. The Albuquerque Indian Center offered the county the site next to their original property and, in turn, invited other organizations to support the project, such as S.A.F.E House, which houses surviving members of domestic violence. The Albuquerque Indian Center improved as part of the \$3.5 million capital project. The county is providing \$250,000 per year to the Indian Center for the next five years to assure appropriate resources for the village's operation. One of the Tiny Home Village project's goals is to offer housing for the homeless community. The village is being built in such a way that people will be able to readjust to society. The concept for the Tiny Home Village is as follows:

- The village will be gated, self-contained, and actively administered with Bernalillo County oversight.
- The community will be thought up of small homes built on chassis for cost-effectiveness and portability.
- Each house will include heating and cooling, power, a bed, storage, a desk, and a chair.
- Restrooms, a kitchen, laundry, and meeting/training rooms will be included in communal buildings.
- The village will be designed for single individuals or couples, as well as veterans, with most residents planned to stay for two years.
- Residents will be thoroughly selected and required to follow certain rules as well as contribute financially and through assigned duties to the community.
- The village will give life and work skills, job placement assistance, and potentially a microenterprise.

It was emphasized that a site would be selected after considering public comments, cost, and other factors, and BernCo will work with nearby neighborhoods to develop a site plan and construction schedule.



---

## **Process of the Tiny Home Village in Albuquerque**

### **October–November 2018–Site Location Selected**

The Tiny Home Village was selected to be located at the Albuquerque Indian Center, 105 Texas St. SE. After seeing all the news coverage regarding the Tiny Home Village and the community's attention to it at public meetings, the Albuquerque Indian Center stepped up with a solution and approached Bernalillo County.

The Albuquerque Indian Center provided the one-acre open ground behind their facility as a potential site for the Tiny Home Village.

### **April 2018–Zone Map Amendment Approved**

The zoning map change was approved by the Albuquerque Environmental Planning Commission on April 11, 2019.

On June 25, 2019, the County Commissioners authorized the Tiny Home Village lease and operational agreements with the Albuquerque Indian Center. "People experiencing homelessness is a growing problem in Bernalillo County and the Tiny Home Village will provide a safe and secure housing opportunity for those individuals in need," says Commission Vice-Chair Debbie O'Malley.

This project also contributes to the stabilization and beneficial influence of the community in which it is located. The agreement with the Albuquerque Indian Center is for a total of \$811,361 for 30 years beginning Oct. 1, 2019, with an option to extend for another 30 years.

The operational arrangement is for five years and is worth \$1.1 million in total. The operating agreement will govern the Tiny Home Village's day-to-day operations. The Albuquerque Indian Center has been offering services to persons experiencing poverty and homelessness for 19 years, including meals, counseling, drug and alcohol rehabilitation, and job readiness.

---

## Rendering of the Tiny House Village Site



*Figure 38. Bernalillo County Tiny Home Village Potential Sites*



*Figure 39. Bernalillo County Tiny Home Village Potential Site*

## July 2019- Finalizing Site Design and Developing Construction Documents

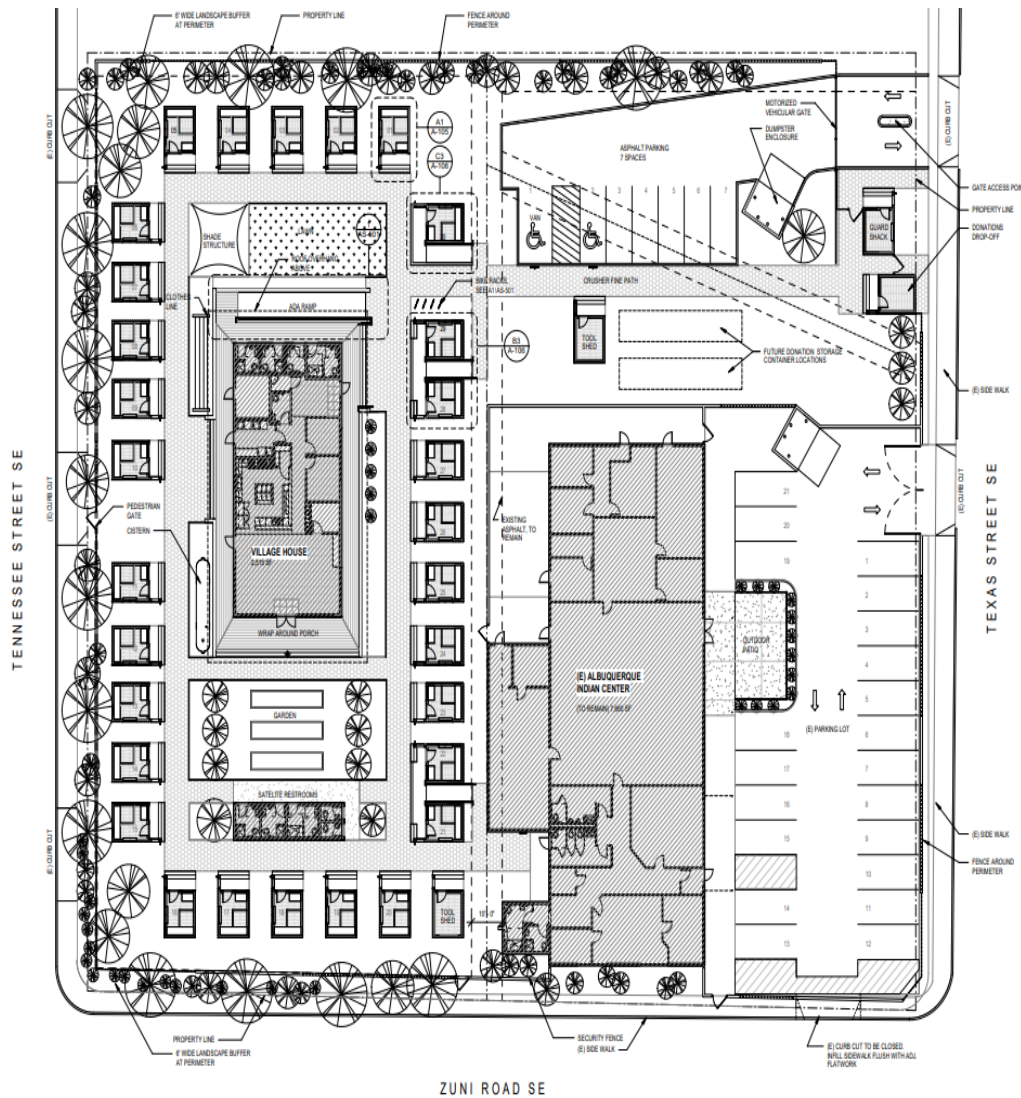


Figure 40. Bernalillo County Tiny Home Village Potential Sites

## September 2019- Requests for Construction Bids Announced

Bernalillo County was seeking building proposals from general contractors for the Tiny Home Village and the Albuquerque Indian Center Project. Notice to proceed effectively on January 21, 2020. The construction contractor was Epic Mountain Construction.



---

## January 2020–Construction Begins



*Figure 41. Bernalillo County Tiny Home Village Potential Sites*

The general construction activities that take place at this stage are the piping of underground facilities, pouring of the foundations, and the construction of the foundation walls of the building. Construction activities for the Village House, main communal building, and satellite toilets include plumbing and electrical roughing, pouring the foundation, starting framing, and internal plumbing and electrical.



*Figure 42. Bernalillo County Tiny Home Village Potential Sites*

---

## May 2020–Building of Tiny Homes Underway

The construction of the Tiny Home Village's 30 'tiny homes' began. The Southwest Regional Council of Carpenters Local 1319 is providing their experience and talent in order to build the units. For the tiny homes, structural insulated panels (SIPs) for the walls and roof were custom-made. SIPs are more energy-efficient than traditional construction and have a longer lifespan. The carpenters' volunteer labor is projected to save the project roughly \$125,000 in costs.

All the structures were designed to survive at least 15 years and have a life expectancy of 30 years or more. The overall cost of the Tiny Home Village project is \$4.34 million. The Tiny Home Village is made up of 30 separate 120-square-foot residences plus a centrally placed common building that houses the kitchen, dining area, living area, and bathrooms. Each tiny house has a bed, workstation, storage space, and electricity.



*Figure 43. Bernalillo County Tiny Home Village Potential Sites*



---

## February 2021- Village Celebrities Grand Opening

By the end of February, the first five people, or core members of the village, had moved.

“A key in your pocket and a solid roof over your head offers the peace of mind and stability needed to move forward in life,” adds County Commissioner O’Malley. Residents will be provided with social services as well as aid in seeking employment in order to achieve financial independence and permanent housing while living in the village.



*Figure 44. Bernalillo County Tiny Home Village Potential Sites*

---

## Tiny Home Village

New Mexico's first tiny home transitional housing project is financed by Bernalillo County and operated by the Albuquerque Indian Center. The project was coordinated by Bernalillo County Commissioner Debbie O'Malley, in partnership with City of Albuquerque Councilors Diane Gibson and Pat Davis, as well as the Albuquerque Indian Center.

The Tiny Home Village, located at 101 Texas St. SE, opened to residents in February 2021 and consists of:

- 30 separate 120-square-foot furnished, heated, and cooled living units with independent porches, five of which are wheelchair accessible:
- Eight single-occupancy, well-lit and visible, lockable bathrooms
- Communal village house with high quality grade kitchen, dining and recreational spaces, full laundry facilities, library, computer pod, office for private meetings, and private individual lockers
- Fully fenced and gated site landscaped with trees, gardens, and open-air living areas

Tiny house village in Albuquerque to provide accompaniment and resources to people who are currently unhoused within a communal and supportive environment so that they can sustainably self-actualize. It embraces the proven value of placing community first and committing to the ongoing accompaniment of our villagers, beyond their stay in the village. Our chosen approach is strengths-based, solution-focused, and trauma-informed. This means each villager according to their individual needs utilizes a client-centered approach. In addition to providing villagers stability and dignity through safe and high-quality supportive housing, our emphasis is on substantive long-term growth and progress. Part of that process is facilitating the practice of being a good and productive neighbor—within the village and in the broader community. Residency in the village is future-oriented and designed to provide villagers with the necessary tools to successfully sustain themselves, including after they have found alternative accommodations outside the village.



---

### 3.3.2 Conclusion

Much has been written in recent years about the United States' growing urbanization. According to census data, the growth of metropolitan regions in the United States has greatly surpassed the country's overall growth. Other recognized trends over the last decade that contribute to the need for more housing units include people opting to marry and have children later in life, necessitating the need for more single-family housing. This tendency exacerbates the already dire shortage of affordable housing for single adults.

The economic realities of homeownership are also changing. A growing proportion of recent graduates are unemployed or underemployed, with astonishing amounts of student loan debt. To quantify the problem, the median pay for people with bachelor's degrees has fallen over the last decade. The subprime mortgage crisis, which began in 2008, revealed other troubling patterns in the homeownership and homebuilding industries: lenders and developers involved in risky, and in some cases illegal, behavior, resulting in many families and homeowners owning homes worth far less than their mortgage.

The mortgage crisis was followed by an economic recession, which left many people unemployed and with few alternatives for selling their homes without suffering losses. —not to mention that being locked into these mortgages left many people with limited mobility options for seeking employment elsewhere. The mortgage and economic crises had an impact on existing homeowners, but they also had an influence on the next generation of would-be homeowners.

Researchers stated in a 2008 report by the Department of Housing and Urban Development that allowing ADUs allows effective use of existing housing stock, helps satisfy housing demand, and provides an alternative to major zoning changes that can significantly affect neighborhoods.

---

The dwellings' modest footprints occupy little patches of vacant land. Tiny houses can utilize the amenities provided by the primary residence, such as sewage, water, electricity, and gas, when used as ADUs. When a cluster of tiny houses is built—like pocket neighborhoods where residences share a common piece of land—an area that would ordinarily be used for a single house can support several households through the utilization of common outdoor spaces (Bozorg & Miller, 2014)

Tiny houses have been presented as a solution for a variety of housing difficulties in a variety of various locales due to their small size, relatively low cost of building and maintenance, and (in many cases) portability. Tiny houses are as different in appearance as the locations they inhabit and the clients they can serve. Tiny houses can serve as temporary lodging, for rent as guesthouses for visitors. Tiny houses could be used as transitional housing for people saving up for a larger home, or as mobile studios for ordinary business travelers (Ford & Lanier, 2017). Tiny houses could be used as permanent dwelling for those who want to save money on the costs of living in and maintaining a standard larger home (Williams, 2014).

Another application for urban tiny houses is as a solution to local homelessness. It is essential to consider the need for affordable housing by providing context for the reasons of housing insecurity, current needs for persons suffering homelessness, and methods targeted at providing transitional housing as an affordable housing alternative, such as small homes. Every year, around 150,000 families with 330,000 children reside in homeless shelters (Jackson, Bridget, & Stampar).

The large number of people affected by the housing crisis highlights the importance of appropriate affordable housing. The literature suggests that people encounter homelessness or housing instability for a variety of reasons. According to Wright and Rubin, homelessness is defined as a lack of housing, although the United States appears to have an adequate supply of market-rate housing but not enough inexpensive housing. According to the National Low Income Housing Coalition (NLIHC), the United States now has a lack of 7.4 million affordable and available rental units (Jackson, Bridget, & Stampar).

---

In January of 2016, opened the doors to its first tiny house village in Austin, Texas. The following case studies are Beloved Community Village in Denver and Tiny House Village in Albuquerque. These tiny house villages common aim to provide permanent affordable housing for the homeless. According to the extant literature, most tiny home communities are non-profits that offer supportive services. The size, pricing, and target populations, on the other hand, vary substantially. While many tiny home communities serve troops or those with major housing difficulties, there are also examples of more generalist programs.

Boneyard Studios was a grassroots housing initiative founded by collaborators Brian Levy, Jay Austin, and Lee Pera. they developed a tiny house and construction site on a privately owned, under-used urban alley lot in Washington, DC. The intent was to highlight the positive attributes of smaller sustainable living spaces and promote tiny homes as an alternative affordable housing option. In other words, they enabled the owners of tiny houses to settle in an existing area.

---

### 3.4 Housing Crisis in Netherland

The Netherlands is now dealing with a variety of urban planning issues. One of these difficulties is that households are contracting, and a growing proportion of people are living alone. Whereas the average number of people per family in 1950 was 3.93, it was just 2.15 in 2019. In 2050, the number of persons living alone is expected to be approximately 50%. Because single-family dwellings are the most popular type of residence, a trend like this necessitates a long-term change of the housing stock. Another trend in urban planning that exists in the Netherlands is a lack of affordable housing, which results in a stall in the flow of the housing market (Ruiter, 2020).

	1950	2019	2050 ( <i>expected</i> )
Percentage of people living alone	<10%	> 33.33%	≈ 50%
Average people per household	3.93	2.15	≈ 2.10
Most common type of houses	Single family homes	Single family homes	?
Amount of people living in the Netherlands	≈ 10 million	≈ 17.3 million	≈ 18.5 million
Number of households	≈ 2.5 million	≈ 7.9 million	≈ 8.7 million

*Table 5. Household size in Netherland (Tellinga, 2019)*

Houses are in high demand, and prices are rising, making it difficult for first-time homebuyers to find a suitable property. It is particularly difficult for persons with a middle income to find suitable housing because they frequently earn too much for social housing and not enough to rent or obtain a mortgage for the homes they desire. Only 4.7 percent of the properties on the market are within their financial range for households with one typical salary, compared to 6.3 percent one year before, representing a 25% decrease in available houses in one year (De Hypotheker, 2022).

---

According to Van der Heijden and Boelhouwer (2018), two of the most prominent experts on the Dutch housing market, there is still a lot of debate about the form in which houses should be built in urban and suburban areas, but most of it focuses on the legal and economic measures that could be implemented rather than the implications of house size and the need for sustainable housing. Nonetheless, the need of encouraging the construction of more communal or student residences for low- and middle-income families is highlighted (Wind, 2018; Van der Heijden & Boelhouwer, 2018). That's also especially true for 'employ people,' such as teachers and nurses, who leave cities due to high house prices despite being indispensable in those fields (Van der Heijden & Boelhouwer, 2018), implying the critical role of affordable housing in the socioeconomic sustainability of cities.

Furthermore, the homeless population has increased by more than 70% in the last decade. In some locations, social housing waiting lists might go up to 15 years. As a result, the Dutch housing crisis is becoming a more serious issue for the country (Thelwell, 2021 ).

Many students have postponed their plans to leave their parents' homes. This is because there is a scarcity of affordable housing. As a result, certain life milestones, such as finding a long-term partner or starting a family, are pushed back. The Dutch housing crisis also creates employment barriers, as people are unable to find housing in city centers. Furthermore, the inability of students to find housing creates economic vulnerability in their families. If a person over the age of 21 lives in the household, no social benefits are available. However, the Netherlands has a well-deserved reputation for coming up with innovative solutions to problems. Most Dutch political parties have acknowledged the urgency of the Dutch housing crisis, and each has proposed different policies to address it. Some of these policies aim to eliminate the landlord levy, increase construction and provide protection for alternative forms of housing and acquire unused private land (Thelwell, 2021 ).

---

### 3.4.1 Motives for Dutch

The Dutch seem to be quite conservative on this issue, and the tiny house movement came to the fore later than the rest of Europe. Marjolein Jonker, a Dutch pioneer, began building in February 2015 and became the first Dutch person to live in a tiny house in May 2016. She subsequently created her own transportable, bio-based, and self-sufficient tiny house and is now a Tiny House Movement spokesperson (Wie is Marjolein, 2017).

Over the last fifty years, the average size of residences in the Netherlands has increased dramatically, while the average size of families has decreased. In addition to these larger homes, people's material wealth has increased (Jonker, 2017). According to the Dutch pioneer Jonker, a shift is currently taking place in which people recognize that happiness cannot be found in the amount of space or the number of possessions. Furthermore, many people have financial troubles or are in considerable debt as a result of their consumerism lifestyle. As a result, the Dutch have increasingly embraced this approach in recent years.



Tiny House Nederland has been the overarching cooperation and foundation since 2016, with the goal of facilitating the adoption of Tiny House by Dutch people who want to live tiny and sustainably, as well as raising knowledge of the concept among a wider audience (Tiny House Nederland, 2020b).

*Figure 45. Map Tiny House Initiatives in the Netherlands (Tiny House Nederland, 2022a)*





---

## Case Study 5– BOUWEXPO Tiny Housing



*Figure 46. The city of Almere, BouwExpo Tiny Housing  
Photo credit: Adrienne Norman*

Location: Almere Port, Netherlands

Year: 2016

Organization: Municipality and winners of competition as developer  
Norman

The municipality of Almere has taken the initiative to explore the needs and possibilities of housing small households in compact, affordable houses in a BouwEXPO. The title 'Tiny Housing' has been chosen for the BouwEXPO, and not the internationally more common Tiny Houses, to do justice to the intended differentiation in housing types and initiators. The EXPO will be about more than detached small houses. Linked and stacked construction methods are also involved, as well as the possibility of communal facilities. The ideas competition 'Free Living. Your Tiny House in Almere!' is the foundation of the BouwEXPO. It is in fact the exploratory 'kick-off' of the manifestation. (BouwExpo, 2016).



*Figure 47. Almere Poort the three residential environments border Homeruspark in Almere Poort (BouwExpo, 2016).*

Everyone was allowed to participate and submit their vision of the 'ideal' Tiny House. There was plenty of room for imaginative solutions and people did not have to feel inhibited by practical obstacles when forming ideas. There was, however, an important precondition; the cottage was not allowed to be larger than 50 m<sup>2</sup>. Innovative, sustainable and feasible ideas with their own character were more than welcome. Because one of the objectives of the competition is to realize the Tiny Houses, the idea also had to be 'makeable'. The deadline for submission was April 20, 2016. No fewer than 245 entries were received.

The BouwEXPO site in Almere Poort consists of three closely located locations, each with its own possibilities and conditions. In one word called 'residential environment'. The different living environments in character can serve as examples for comparable follow-up projects elsewhere: With the diminishing household trend, they believe it is critical to reconsider housing, and that initiative provides inspiration for this. Twenty-five winners were chosen to design their own tiny house, but they had the option of living in it, selling it, or renting it out.

---

The sixteen permanent and temporary small house residents are a diverse group of one- and two-person households. The houses, which have a maximum size of 50m<sup>2</sup>, are experimental in the sense that they all use unique energy and water systems. To clarify, some buildings are movable and off-the-grid, while others are stacked in a tower, but there is also a cylindrical house that can rotate (Ruiter, 2020).

The great diversity of residents who have moved into the houses marks the development of Almere into a more heterogeneous city with more single-person households and diverse housing needs. In view of the forecasts, the potential target group of smaller households with a relatively limited budget is growing. Smaller living is also a wish of some of those who are inclined to move. This offers opportunities to apply it further in the city, where small homes can offer innovative solutions when expanding or expanding existing neighborhoods. It is important that the small house meets the wishes of the intended residents, offers sufficient comfort and is in a good location. Specific examples of the BouwEXPO can be used for this purpose, in collaboration with developers and housing associations (Tiny House Nederland , 2020 ).



*Figure 48. The city of Almere, BouwExpo Tiny Housing Photo credit: Adrienne Norman*



---

In addition, the book *Small Living – Small Homes* was published by THOTH Publishers, describing sixteen small houses from the BouwEXPO small houses idea competition.

The entire construction process is highlighted, from competition to placement. Ana Rocha Architecture's micro house Slim-Fit even won the Yearbook Architecture award in the Netherlands 2017-2018 and was awarded the Dutch Design Award (2018). In the book, *Tiny Houses* is extensively documented, including a review of the competition, the path to realization, and the building itself. Residents also talk about their tiny homes (Weessies, 2019).

## Case Study-6 Tiny Village Kleinhuizen



*Figure 49. Tiny Village Kleinhuizen, location Nieuwegein  
Source: (TinyFindy, 2020).*

Location: Nieuwegein, Netherlands

Year: 2017

Organization: Tiny House Utrecht Foundation, in collaboration with  
KantoorKaravaan

---

This project is a cooperation between the Rijksvastgoedbedrijf (Governmental Real Estate Agency), HOD – a vacancy management business that generally concentrates on anti-squatting of housing – and the people of Tiny Village Kleinhuizen. In 2017, the Tiny House Utrecht Foundation, in collaboration with Kantoorkaravaan, received permission for a special project in Nieuwegein. Ten Tiny Houses were temporarily allowed to stand and live in an old orchard of about 3 hectares in the middle of office buildings until a new construction project was started. They organized all kinds of fun activities, created a flower meadow and playground, and held open days. Kleinhuizen has shown that a Tiny House village can give a particularly attractive interpretation to temporarily unused areas.

In the second half of 2019, it became clear that temporary really means that: the group had to find a new place before the end of the year at the latest. They searched diligently and talked to the municipality of Nieuwegein. The latter was benevolent but lacked a suitable site owned by the municipality. Two of the residents met with employees of HOD Vacancy Management and heard that the Central Government Real Estate Agency was looking for a way to bring social control to Kamp van Zeist in the form of vacancy management. The environmental permit has been granted for a period of one and a half years (Jonker, 2020).



*Figure 50. One of the tiny houses from Tiny Village Kleinhuizen*

---

Where only ten Tiny Houses were licensed in Nieuwegein, fifteen Tiny Houses and their residents are welcome in Zeist. After all, there is more than enough space on the large property, so that each house has enough privacy. The extra places were quickly filled: Kleinhuizen has a large list of interested parties. What is so nice about Kleinhuizen is that all Tiny Houses are different. Some are self-built, but there are also many different Dutch tiny house builders represented. This ensures a nice mix of DIY and professional construction.

The tiny houses in tiny village are transportable, attractive, off-the-grid, vary in size but are all less than 50 m<sup>2</sup>, and are spread out around the huge military land.

### Case study 7-Tiny House Nijerk



*Figure 51. Tiny House Nijerk Source: (Woningstichting Nijkerk WSN,2022)*

Location: Nijerk Netherlands

Organization: WSN-Local housing organization

Year: 2022



---

Tiny House Nijkerk is a project of the local housing association WSN. The housing organization, which works closely with the municipality, was created in response to the increasing number of asylum seekers. However, the influx has diminished, and the focus has shifted to three groups: asylum seekers, young people, and urgent migrants. The modest neighborhood has a balanced and mixed distribution of different populations, resulting in the integration of asylum seekers and a social safety net for all residents. People rent tiny houses from the housing association and can reside in them for a limited time. Asylum seekers and young people can dwell in the houses for a maximum period of life. Asylum seekers and young people can stay in tiny houses for up to five years, while urgent asylum applicants can stay for up to two years.

The 28 tiny houses are all identical HeijmansONE dwellings with a common efficient interior with a mezzanine – an intermediate floor in a partly open building – and a ground floor area of 39 m<sup>2</sup>. Because the zoning plan is temporarily exempt for ten years, it is critical for the effort that the small dwellings are mobile and can perhaps be relocated to another site in ten years. The housing association underlines that these modest houses are intended to serve as a steppingstone to a regular house (Ruiter, 2020).



*Figure 52. Ground Floor Plan from Tiny House Nijkerk Source: (Woningstichting Nijkerk WSN,2022)*



*Figure 53. First Floor Plan from Tiny House Nijkerk Source: (Woningstichting Nijkerk WSN,2022)*

---

### 3.4.2 Conclusion

The case studies in this section were collected and chosen based on a preliminary consideration of different sources. Because the initiatives have varied motivations, are begun by different types of actors, and are in different parts of the Netherlands, the cases analyzed in this thesis reflect a broad variety of tiny house initiatives. Tiny House Nederland's website was visited, and its 'Tiny Database' and 'Tiny House Map' were utilized to locate tiny house efforts (Tiny House Nederland, 2020). This database and map were used to pick Tiny Village Kleinhuisen and tiny homes. Using Google, it was easy to locate tiny house projects focusing on a certain purpose, such as tiny dwellings in the problem of homelessness. WSN, the local housing association, is behind the Nijkerk tiny house program. As a result, asylum seekers and young people can stay in the houses for as long as they like.

As previously mentioned, the gap between tiny houses and small homes is not always visible due to the lack of a precise definition. Tiny House Nederland (2020c) associates a tiny house with tiny living. This requires living more mindfully in a smaller place. As a result, Tiny House Nederland (2020c) asserts that the size of a house is not necessarily determinative in classifying a house as a tiny house. The size of a house is also determined by its surroundings. Even though there appears to be no literature expressly saying that a tiny house must be detached or located on the ground floor, tiny houses associated with the Tiny House Movement appear to meet this requirement. Because the housing shortage is a national issue, rather than just a local one, the number of tiny houses in the Netherlands is increasing, according to literature research (Valk, 2020).

---

### 3.5 Housing Crisis in Australia

Housing in Australia is growing increasingly pricey. Since the mid-1990s, Australian housing prices have more than doubled in real terms, greatly outpacing the increase in household incomes. Housing spending in Australia has risen from over 10% of total pre-tax household income in 1980 to around 14% today (Coates & Wiltshire, 2018 ; Daley et al., 2018).

Over the last decade, low-income households' housing spending as a share of income has climbed substantially more than that of other households. Rents adjusted for quality have grown more slowly than housing prices. However, low-income households, particularly those in capital cities, are spending a larger proportion of their income on rent, resulting in increasing financial stress. Several Australian governments and academic and private-sector studies have identified sluggish home supply, particularly restricted zoning, as a major contributor to Australia's high and growing house prices.

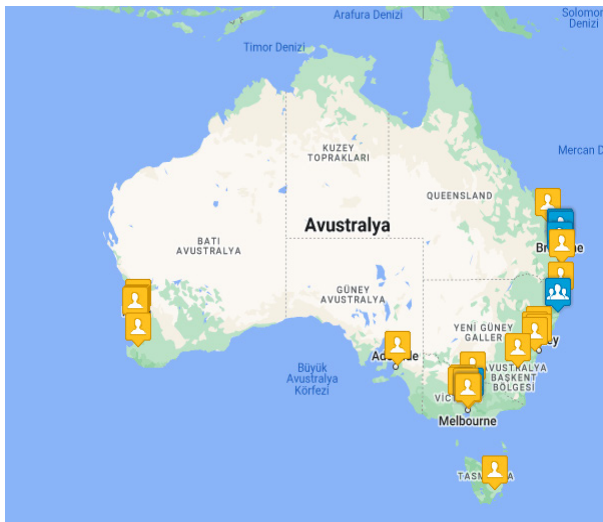
A broad and expanding worldwide literature regularly demonstrates how land-use planning restrictions have restricted many housing markets' ability to adapt to rising demand, driving up house prices in several countries (Coates & Wiltshire, 2018 ). Most policy papers advocate for increasing land availability and zoning constraints to allow for more housing density. Similar recommendations are made in " *Housing Affordability*": Reimagining the Australian Dream. However, a number of housing researchers in Australia are dubious that increasing housing supply will improve affordability. They argue that the majority of new housing built in Australia is out of reach for low- and middle-income earners. They argue that building more houses will not reduce the rents paid by the poorest Australians unless those houses are specifically designed to house them.

---

### 3.5.1 Motivation for Australians

Tiny houses on wheels (THOW) offer a flexible and affordable alternative to a housing industry that is widely regarded as homogeneous and slow to adapt to the changing needs and diversity of the Australian population. Data reveal that Australian house prices have risen faster than average full-time incomes (Brokenshire, 2019). According to the Urban Developer (2018), home ownership among Australians aged 25-34 fell from 61 percent in the early 1980s to 44 percent in 2016, while home ownership among Australians aged 34-44 fell from 75 percent to 62 percent.

The rising cost of housing is eventually contributing to a decrease in home ownership within all Australians under 65, especially those on low incomes. A THOW can range in price from AUD \$5,000 to \$100,000, depending on the number of recycled materials used. While the cost per square meter may be higher in some situations than in a regular residence, owners are able to overspend on higher-quality fixtures and finishes because the overall cost is lower (Brokenshire, 2019).



Reducing the size and expense of a home means not only less financial stress and increased housing stability, but also the freedom to work fewer hours, spend more quality time with family and friends, and make meaningful contributions to the community.

Figure 54. Map Tiny House Initiatives in the Australia (Tiny Home Builders 2020)

---

## Case Study 8–Tiny House Plot Project Gosford



*Figure 55. The Tiny House Foundation pilot project designed by NBRS Architecture*

Location: Gosford, New South Wales, Australia

Organization: Tiny Homes Foundation (pro bono)

Year: 2018

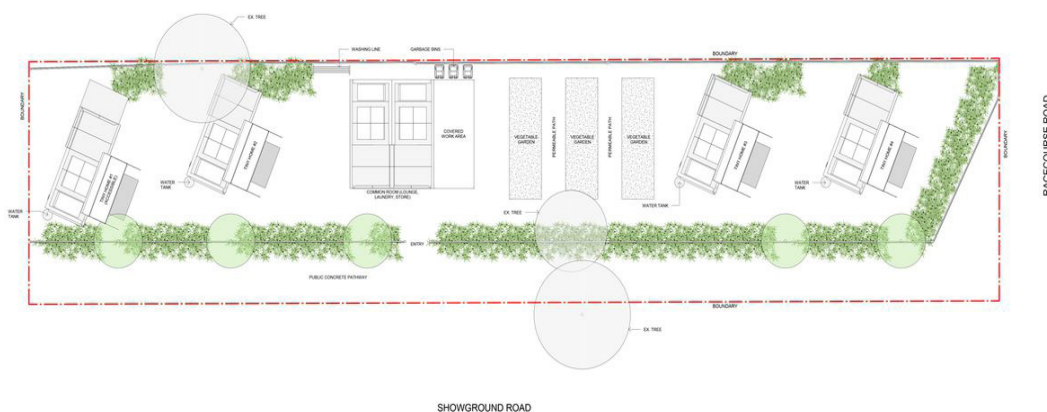
Australia's first tiny house authorized for homeless people in NSW. Tiny Homes Foundation (THF) has been granted DA authority to construct Australia's first tiny house project for homeless women, men, youth, and the elderly. The pilot project will include four tiny dwellings, a shared lounge, a common laundry/workshop, and community vegetable gardens near Gosford Hospital on the NSW Central Coast. THF's methodology is built on a "housing-first" approach that is supported by a network of training, employment, and social support services.



THF has worked with like-minded partners who are leaders in their fields, such as Clayton Utz (lawyers), NBRSA architecture (architects), Chase Burke & Harvey (surveyors), Wilson Planning (town planning), The Skills Generator (employment & training), TAFE Outreach (education), and Pacific Link (transportation) (social housing providers).

Each 14sq.m home has a finished cost of less than \$30,000, includes a full bathroom and kitchen, embraces solar efficient design, and is quickly erected and dismantled as the newest initiative to enhance the supply of 'affordable housing.'

However, building tiny houses is one thing, but what distinguishes the Tiny House Foundation initiative is that it is council-approved, low-cost, replicable, and includes Australia's first equity participation scheme for tenants, in which accommodation payments not applied to the cost and maintenance of the project will be available to THF tenants as needed for future housing-related expenditure, thereby creating a pathway from homelessness to self-sufficiency (Foundation, 2022).



*Figure 56. Site Plan of the Tiny House Foundation pilot project designed by NBRS Architecture*



---

## Case Study 9- Launch/Harris Transportable Housing Project



*Figure 57. The portable unit designed by Schored Projects*

Location: Melbourne, VIC

Year:2018

Organization: Harris Capital

The Harris Transportable Housing Project was launched in early 2019 by community housing provider Launch Housing and philanthropic organization Harris Capital. The Victorian Property Fund initially funded the construction of six tiny permanent homes in Melbourne's inner west. There are currently 57 small homes spread across nine plots of unoccupied land in the Foots cray and Maid stone neighborhoods.

The Harris Transportable Housing project provides ecologically friendly prefabricated residences that meet the needs of persons who have been homeless.

---

The homes are 20sqm on the interior and 60–90sqm on the outside, with a balcony, kitchen, bathroom, and separate protected courtyard. The units meet the 6-Star NatHERS energy rating, with a focus on unit orientation, window placement, and solar hot water. Because of floor space constraints, the flats are not intended to facilitate independent living for those with physical limitations.

By locating six to twelve dwellings on each of the nine sites, small communities within bigger communities are formed, providing new social links and supports. However, the lack of common space and facilities inhibits resident contact. The primary purpose of this initiative was to demonstrate how empty government property might be used to solve homelessness using low-cost tiny houses (Launch Housing, 2019). When fully linked and installed, the cost of these systems has been reported to be between \$80,000 and \$130,000 per house.



*Figure 58. The portable unit designed by Schored Projects*

---

This reported value is estimated to be around \$80 000 per unit, plus site fees of up to \$50,000. Meanwhile, the cost of constructing a small, permanent one-bedroom unit in Melbourne is between \$115,000 and \$160,000. At the 2019 Planning Institute Australia PIA National Awards, the Launch–Harris Transportable Housing Project received an Award for Planning Excellence: Best Planning Ideas (Small Project) (Moslehian & Tibayan, 2021).

### 3.5.2 Conclusion

While tiny houses are much smaller than normal housing stock, there is no clear definition of what makes a tiny home in policy or academic study. Over the last decade, these compact residences have increased in popularity and are increasingly being accepted as an alternative housing solution to solve a variety of social, economic, and environmental challenges in Australia by people, non-profits, the private sector, and the government. The decision to downsize to a tiny home is typically portrayed in the media as a return to basics, a way of simplifying life and minimizing the environmental impact of living. These encounters range from DIY construction methods and salvaged or recycled materials to the potential of small dwellings as off-grid housing (Moslehian & Tibayan, 2021).

Most tiny house residents regard their home as a permanent residence rather than a temporary type of shelter (McAllister, 2017). This approach contrasts with the usage of tiny homes as disaster relief shelters or as temporary housing for vulnerable communities. As individuals and organizations migrate between communities, sharing skills, ideas, and experiences, Tiny House communities can develop webs of social and economic interaction (Alexander, 2017). Living in tiny houses can provide people with a sense of autonomy and freedom, transcending the dominating themes of modern consumer society.

---

As indicated in the section on the Australian housing crisis, housing alternatives for persons on very low incomes (for example, single retirees, people with disabilities, and people who are barred from employment) are extremely restricted. Both home ownership and market-rate rents are dramatically out of reach for many people. For many residents, social housing is the sole viable alternative for obtaining safe and inexpensive housing. Given the State Government's recent large investment in social housing, this gives a chance to investigate alternate kinds of social and affordable housing. This includes micro towns of high-quality, prefabricated, low-cost small dwellings built for aging in place, aimed at residents who want to live in a sustainable and socially linked way. Tiny Homes Foundation, as shown in the eastern portion of Australia, is a not-for-profit organization focused on delivering socially, environmentally, and economically sustainable inexpensive housing options. The first case study in this section, a tiny home initiative in Gosford, NSW, is an Australian first based on a "Housing-first" approach that prioritizes housing for persons suffering or at threat of homelessness, followed by additional supports and services as needed. Organizations are consistently impressed by the project's good outcomes and strongly advocate for more comparable projects that bridge the gap between crisis housing and private leasing. Residents of tiny homes have gained independent living skills, allowing them to successfully shift. This strategy could be utilized to improve the availability of inexpensive housing, especially if it is less expensive for the government and community housing sectors, and/or provides increased sustainability and lower energy costs for inhabitants over time.

### 3.6 International Case Studies Conclusion on Urban Issues

Overarching urban planning issues	Issues mentioned	Tiny house Initiatives-International Case Studies								
		United States				Netherlands			Australia	
		1	2	3	4	5	6	7	8	9
Changing housing market	Increasing one-person households					✓		✓		
	Affordable Housing		✓	✓		✓	✓		✓	
Societal Issues	Housing for urgent seekers	✓				✓		✓		✓
	Sheltering for homeless people			✓	✓			✓	✓	✓
Community Building	Improving neighborhood connection and integration	✓			✓	✓	✓	✓	✓	✓
Large ecological footprint of housing	Reducing ecological footprint		✓			✓	✓		✓	✓

*Table 6. Schematic presentation of tackled case studies Source : Table prepared by the Author*

In this section, tiny house initiatives are examined because of the impact of urban planning issues that arise for different reasons. One of the main aims of this thesis is to touch on the effects of the tiny house initiative on urbanization. A couple of examples of urban planning issues were already introduced in the theoretical model, homelessness, lack of affordable housing, the large ecological footprint of housing, and the increase in one-person households. These case studies elaborate on the issues that are addressed by the initiatives studied in this part. It gives an idea about which urban problems the selected case studies deal with and for what purpose they were established. The reason for choosing these case studies is that there are issues addressing housing emergencies in the previously mentioned model. Currently, there are many tiny house examples in the world, but before examining the housing crisis at the scale of Turkey, it is important to examine how the countries that are the pioneers of the tiny house movement make tiny house initiatives.







## **4 TINY HOUSE AS POSSIBLE POLICY STRATEGY TO ADDRESS HOUSING EMERGENCIES IN TURKEY/İZMİR**

---

## 4.1 Housing Crisis in Turkey

As mentioned in the first chapter, there are important factors such as increasing population and urbanization in the increase in housing demand in Turkey. In addition to the population growth rate and the growth of urbanization, insufficient income distribution, per capita income level, and the change in the exchange rate, which was affected by the inadequacy of housing loans, has addressed the housing emergency in Turkey.

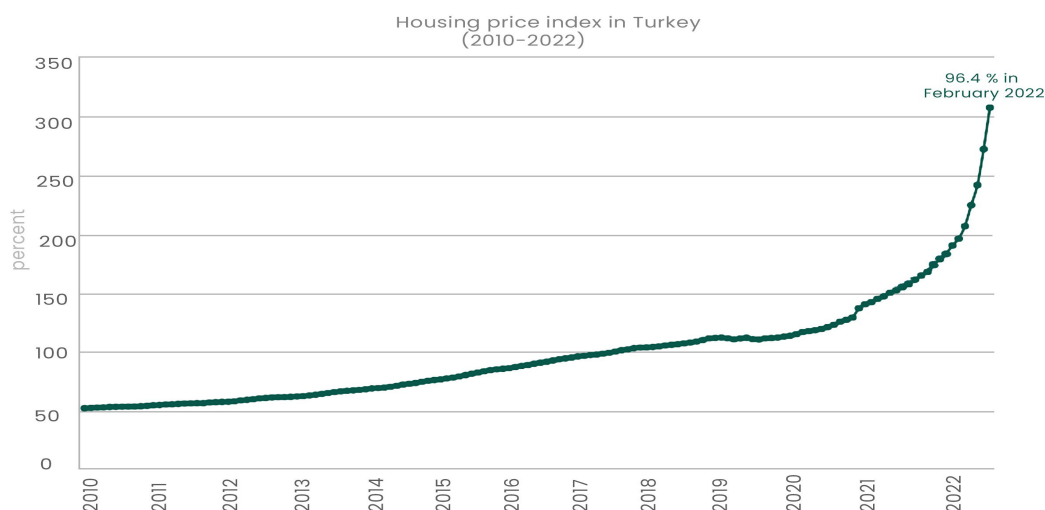
Turkey is currently experiencing one of the biggest property crises in its history, with house prices in the country doubling as a result of a variety of economic factors, according to data from Turkey's Central Bank.

Central Bank of the Republic of Turkey (CBRT,2022) , house prices in Turkey increased by 96.4 percent year on year in February, with the pace exceeding 102 % in new build properties. In the same period, home prices in Istanbul, the country's most populous metropolis and the most expensive in terms of housing, grew 104 %, reaching more than 13,800 lines (\$864) per square meter.

The price increase has been fueled by a supply constraint caused by rising construction costs, which have slowed house investments, as well as strong demand from wealthy buyers looking to protect their funds from inflation and the plummeting lira.

Similarly, rent costs in February were up 84.2 % from a year prior, according to data from a respected think group based on listings. In Istanbul, Ankara, and Izmir, the increase was greater than 100%. In Istanbul, the average monthly rent for three-bedroom flat hit 5,000 liras, well above the minimum wage of 4,250 liras, which is earned by about half of the country's workforce.





*Figure 59. The Housing Price Index in Turkey Source: TURKSTAT and European Union Statistics Office (Eurostat) visualized by the author*

As part of Erdogan's (president of Turkey) plan, public banks are offering 10-year loans with a monthly interest rate of 0.99 percent to first-time homeowners who spend up to 2 million liras on new homes. In addition, buyers of residences worth up to 2 million liras who fulfill at least half of the purchase price by converting hard currency or gold deposits are eligible for 10-year loans with 0.89 % monthly interest (Saglam, 2022).

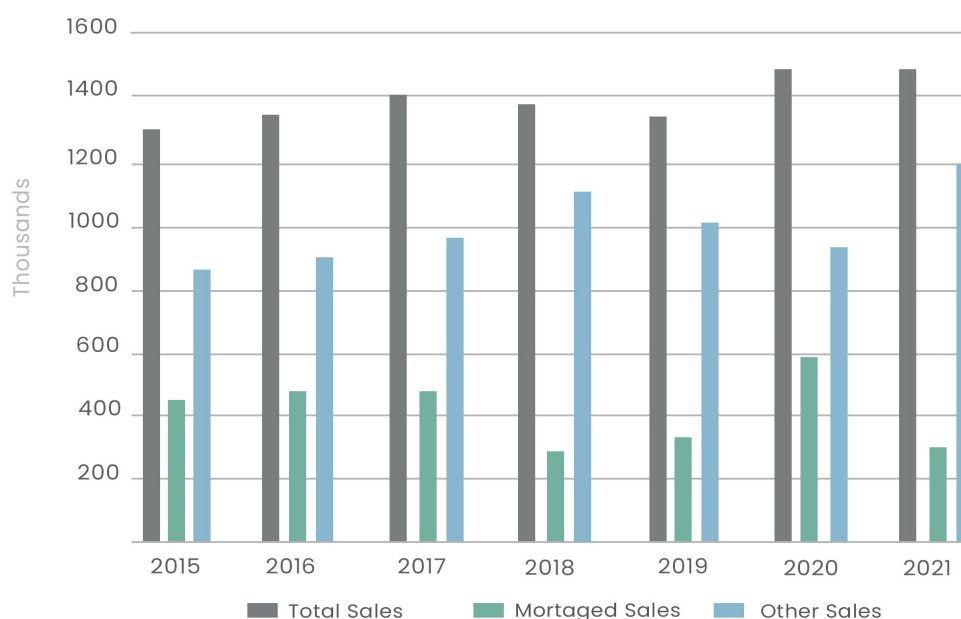
Monthly payments for a 10-year, 2-million-lira loan in the first category are 28,600 liras in the public (Ziraat Bank, 2022)'s online calculator, and 14,250 liras in the second category. Such sums are prohibitively expensive for most socioeconomic strata in Turkey, where the minimum salary of 4,250 liras or somewhat higher salaries has become the norm in the private sector, while public sector earnings average less than 7,000 liras (Saglam, 2022).

The increase in housing and rent prices in Turkey continues to rise. After the TL depreciated against foreign currency and the official inflation exceeded 70 percent, housing and rent prices are increasing.

---

### 4.1.1 Home Ownership in Turkey

In terms of transaction volumes, Turkish housing markets are trending in the opposite direction of international trends. The economic crisis had a minor impact on overall housing sales in 2018 and 2019. (Fig. 60). Rather, the share of mortgaged sales fell to 20–25% from its usual range of 33–34%. Transaction volumes increased during the first year of the pandemic due to mortgage interest rate cuts in 2020. With the end of favorable mortgage interest rate conditions in 2021, the share of mortgaged sales fell to 20% from 38% in 2020. However, since house sales to foreigners increased, reaching 3.9% of total sales in 2021, the highest rate ever observed, this has not been reflected significantly in total sales (A.Khurami & Özdemir Sarı,2022).

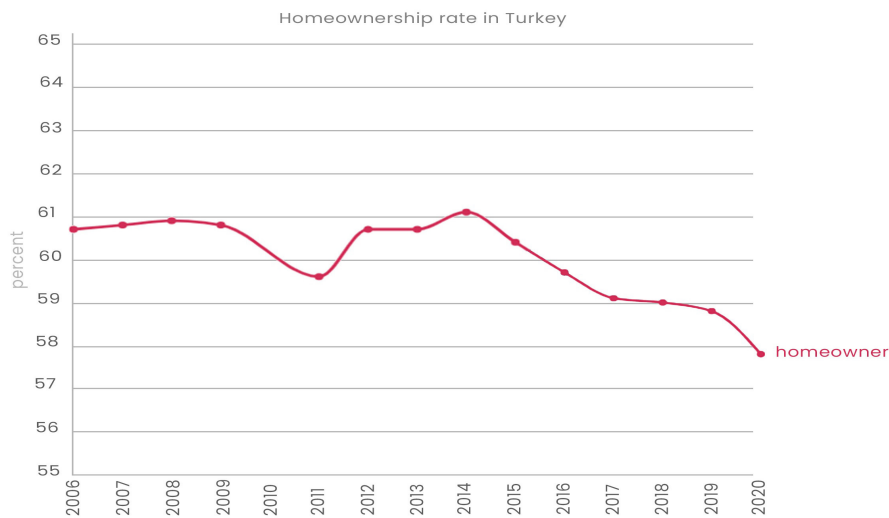


*Figure 60. House Sales in Turkey (2015–2021). Source: A.Khurami & Özdemir Sarı,2022; TURKSTAT (2022e)*

There are no reliable and complete data for examining the development of house prices in Turkey. Because it is based on expert valuation reports of mortgage applications, the (Central Bank of the Republic of Turkey) CBRT's house price index underrepresented the Turkish housing market (Özdemir Sarı 2019).

---

The economic crisis of 2018/19 exacerbated the downward price trend. Prices were slightly recovering when the pandemic struck. The 2020 Covid-19 lockdowns triggered mobility trends favoring less dense urban areas such as fringe and coastal settlements, where the majority of summer homes are single-family houses. However, due to a lack of data, it is difficult to examine these tendencies. Increased residential mobility, combined with lower mortgage interest rates and low levels of housing output, resulted in positive real house price growth in 2020. The sharp rise in inflation has recently been mirrored in a sharp rise in house prices. This has had a significant impact on homeownership rates and has not been reflected significantly in total sales (A.Khurami & Özdemir Sarı,2022).



*Figure 61 . The rate of homeowners in Turkey Source: TURKSTAT and European Union Statistics Office (Eurostat)*

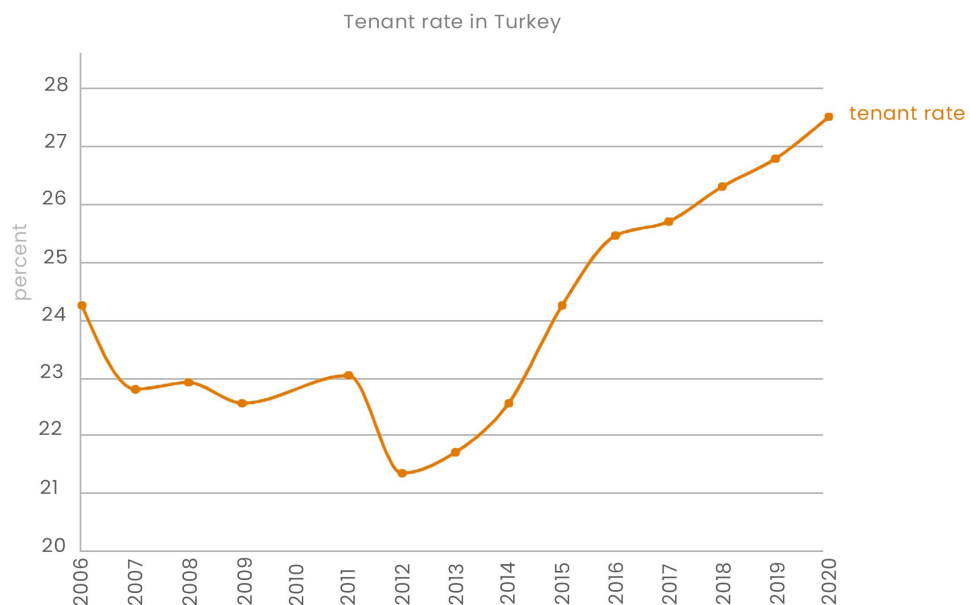
The figure shows the rate of “housing ownership” among those who live in their own homes. When compared to 15 years ago, this rate has reduced. According to TUIK data, (TURKSTAT-Turkish Statistical Institute) the rate of home ownership fell from 60.7 percent in 2006 to 57.8 percent in 2020. The highest percentage measured between 2006 and 2020 was 61.1 percent in 2014. Between 2014 and 2020, the rate of home ownership fell by 3.3 percentage points. This equates to a 5.4 percent decline.



---

## 4.1.2 Tenant Rate in Turkey

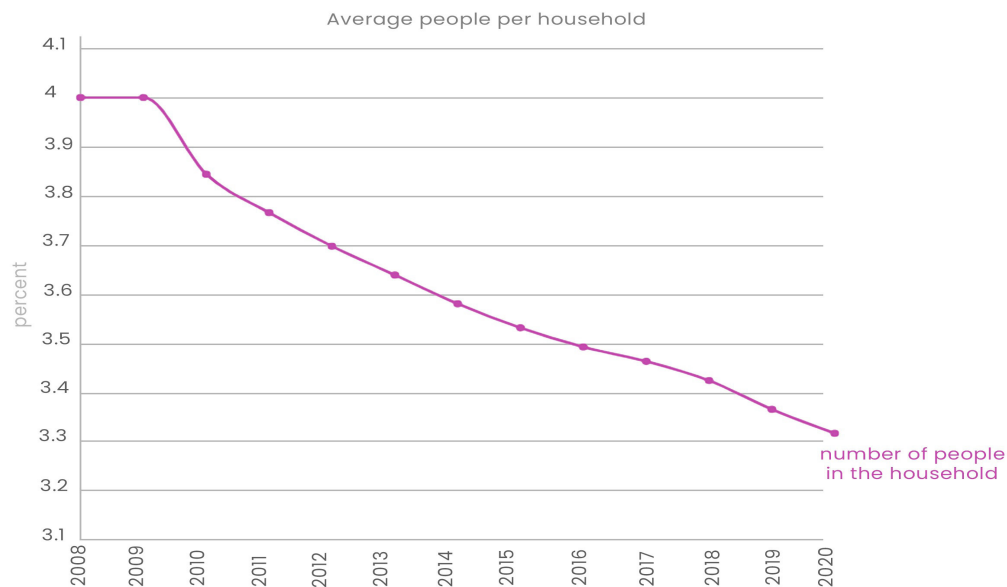
According to these statistics, the number of people who do not own a home has increased. Tenants, lodging, and others are those who do not live in their own home. Others imply “without owning a home and paying rent.” According to data provided from (TURKSTAT) and the European Union Statistics Office (Eurostat), 26.2 percent of individuals will be tenants in 2020. In 2006, this figure was 23.5 percent. In 2012, the tenant rate had fallen to 21.1 percent.



*Figure 62. Ratio of people living on rent in Turkey Source: TURKSTAT and European Union Statistics Office (Eurostat)*

## 4.1.3 Average Household Size

The tenant rate has risen by 5.1 percentage points in the nine years from 2011 to 2020. This is a 24% increase. According to TUIK data, (TURKSTAT) the average household size in Turkey is rapidly decreasing. The average household size has reduced from 4 people in 2008 to 3.3 people in 2020. That's a 18 percentage decrease.



*Figure 63. Average household size Source: TURKSTAT and European Union Statistics Office (Eurostat)*

#### 4.1.4 The Context for Issues of Homelessness

Homelessness is a complicated and multifaceted societal issue that arises in both developing and industrialized countries for a variety of causes and requires an immediate response. While homelessness is often characterized as not having a place to live, being in homeless shelters or with other individuals, such as family, can also be considered homeless. Homelessness is one of the world's most serious social problems nowadays. According to UN estimates, there are 100 million homeless people over the world. Homelessness, which is a symptom of many social problems, is also one of the twenty-first century's indications of humanity's tragedy (Özdemir U , 2010).

---

Definitions of homelessness in various European countries are included. There is no official definition of homelessness in Bulgaria, the Netherlands, or Spain, and the number of homeless people is unclear.

In these countries, homelessness is linked to housing problems and is centered on social dynamics. In Denmark, however, homelessness is synonymous with social isolation. It is recognized that the childhood era has an impact on homelessness. In Denmark, persons have the right to seek refuge but not to be housed. Unlike in other nations, great poverty, acute hardship, and multiple deprivations are the primary causes of homelessness in Italy. In most other countries, the cause of homelessness is identified as a housing problem. Unlike other countries, Hungary places a premium on economic development (Işıkker, 2014).

Today, many homeless people live in cities, particularly Istanbul, Ankara, and Izmir. Turkey's most populous metropolises, where homelessness is becoming more evident. Homelessness exists in parks, under city walls, in mosque gardens, near metro stations, bus terminals, and in vacant buildings. Seasonal processes cause these places to shift. For example, when the weather is cold, the homeless are housed in the municipality's gyms. They do, however, have a limited capacity. Aside from that, the only place where the homeless can find shelter is the shelter, which opened in 2011 and houses a small number of homeless people until they can make it on their own in Istanbul.

This location, however, has a maximum capacity of 20 people. The actual number of homeless people in Turkey is unknown due to the lack of formal studies on the subject. According to the head of the shelter, there are around 10,000 homeless individuals in Istanbul and 100,00087 in Turkey as a whole (Işıkker, 2014). Especially when large-scale economic crises emerge. The worldwide financial crises of the 2000s increased unemployment and brought with it a slew of other issues. Homelessness can be attributed to unplanned urbanization, particularly in impoverished areas. As a result of increased migration and urbanization, an adaptation challenge has evolved. There are also other reasons, such as distinct economic conditions or socio-cultural frameworks.

---

## 4.2 Tiny House Movement in Turkey

Along with the high housing prices, the trend of ecological living has increasingly widespread in Turkey, and the concept of tiny house began to spread rapidly. People began exploring for other accommodation options especially housing crisis and condensed city population. This resulted in a 100 to 150 percent increase in sales “According to Galip Olmez, CEO of Yako Groups, Turkey’s largest producer of tiny houses. “It is an excellent alternative if you currently own a plot or are willing to purchase one. According to him, locating a little house on these plots has become a new ecological lifestyle in Turkey.

According to TUIK data, the sales of lands such as land and fields exceeded the sales of housing, with an increase of approximately 30 percent in 2021, exceeding 1.5 million Tiny homes, some of which are on wheels and can be towed anywhere, offer an eco-friendly alternative to regular housing and are growing in popularity among Turkish citizens. According to Turkish Statistical Institute data, almost 1.5 million tiny houses were sold in 2021, representing a 30 percent increase year on year. A “tiny house expo” was held for the first time in Istanbul, Turkey’s economic metropolis, in early February, attracting a huge number of buyers as construction companies presented their newest goods and designs.

Yako Groups manufactures roughly 500 tiny houses per year, some of which are exported as ready-to-assemble kits to European and Middle Eastern customers. Prices range from \$15 000 to \$30 000 (R229 292 to R458 620), depending on the size (15 to 40 square meters). While two-bedroom typical houses in a desirable neighborhood in Istanbul, the country’s most populated city with 16 million population, cost roughly \$55 550, a tiny house is a far cheaper option.

---

The low cost is not the only attraction for tiny house enthusiasts. Being close to nature and easy to tow is another compelling factor. As the world's energy prices rise, Turkish households confront exorbitant electricity bills, according to Bozkir, who adds that a little house is relatively reasonable. However, according to Bozkir, strong inflation has increased the pricing of tiny houses. Cases of young families and senior people downsizing from three- or four-bedroom apartments in big cities to modest dwellings in rural places to be closer to nature have been recorded on social media (Xinhua, 2022).

In addition, tiny houses in Turkey have become popular not only for accommodation but also for cafes, events areas and many hotel areas. The first company to do this was “Vagoon House”. It is Turkey’s first commercial venture to design and market THOW. They offer a tiny house to use not just individual tiny houses, but also cafes, office,s and hotels. There are numerous platforms related to Tiny House, as numerous social media channels show. One of the best examples of this is Özlem’s Tiny Houses (YouTube) channel in Turkey. You can watch different types of tiny house examples from various parts of the country on this channel. In recent years, the search term ‘Tiny House’ has been used frequently on Google. The graph depicting this search term on Google between 2004 and 2021 shows that this line increases dramatically after 2014.

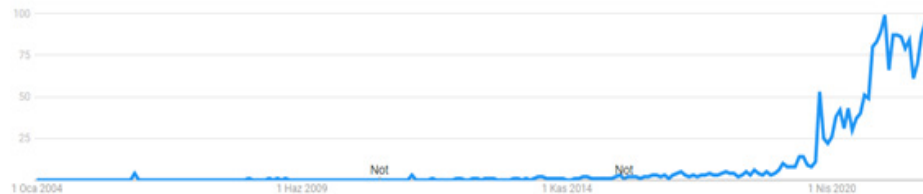


Figure 64. Google trend search on “tiny houses”in Turkey, 2004–2022 (Google Trends 2022).

---

### 4.2.1 Legal Requirements for Tiny House in Turkey

Tiny house will fail in cases where it is not designed in accordance with highway standards, for towable vehicles, in which the integrity of the interior and exterior space is not established, it is not compatible with human ergonomics, outdoor conditions and the width x length x height and weight limits of the mass cannot be predicted in wrong designs. If the design criteria and method are not applied correctly, it is possible to experience serious accidents with mobile tiny house/ mobile tiny houses.

At this point, every design that can be mentioned with the definitions of static caravan / mobile home / mobile tiny house has an industrial design feature and consists of unique design components. Like every wheeled vehicle navigating in In Turkey traffic, these vehicles must be produced within the framework of certain regulations. This is divided into two as O1 and O2 as type approval certificates. Category O1 are trailers with a maximum weight not exceeding 750 kg. The O2 category is trailers with a maximum weight of more than 750 kg and not exceeding 3500 kg.

Tiny houses must provide O1 and O2 documents according to their weight, as internationally approved (ISO 9001-14001-TSE). Since O1 Category is not subject to any license, it does not have its own special plate. The plate of the towing vehicle is affixed to the back of this trailer. It is not subject to TüvTürk inspection and is tax free. It can be used with a class B vehicle license. O2 Category is subject to license. It has its own plate. It is subject to TüvTürk inspection once a year (for safety control purposes).

There is no tax. It can be used with a BE class vehicle license (Vega Tiny House). When the land stock is examined in Turkey, there are many olive groves, lands without a zoning permit, except for the construction of a daily facility area within 100 m of the coastal edge, Bosphorus projection lands, unzoned lands under 5000 m<sup>2</sup>, and the number of areas on which we do not see any buildings, except for illegal constructions, is quite high.



---

## 4.3 Case Studies in Turkey

### Case Study 10–Mandarin Tiny house in Bodrum, Turkey

The couple Özveri Girgin and Tayfur Girgin move to Bodrum to realize their dreams with a radical decision they took while living in Ankara. The couple uses their tiny house as parked permanent residence on a land of approximately 6 declares that they rented in Bodrum. Their small house is 3 m wide and consists of two floors, the ground floor is 24 m<sup>2</sup> and the upper floor is 20 m<sup>2</sup> with the cat path, a total of 44 m<sup>2</sup>. The tiny house has features that will provide almost every comfort condition that a 2+1 house has today. The small house is planned on two floors, with the living room kitchen and bathroom on the ground floor, and the bedroom and a reserved area for the guests on the upper floor.

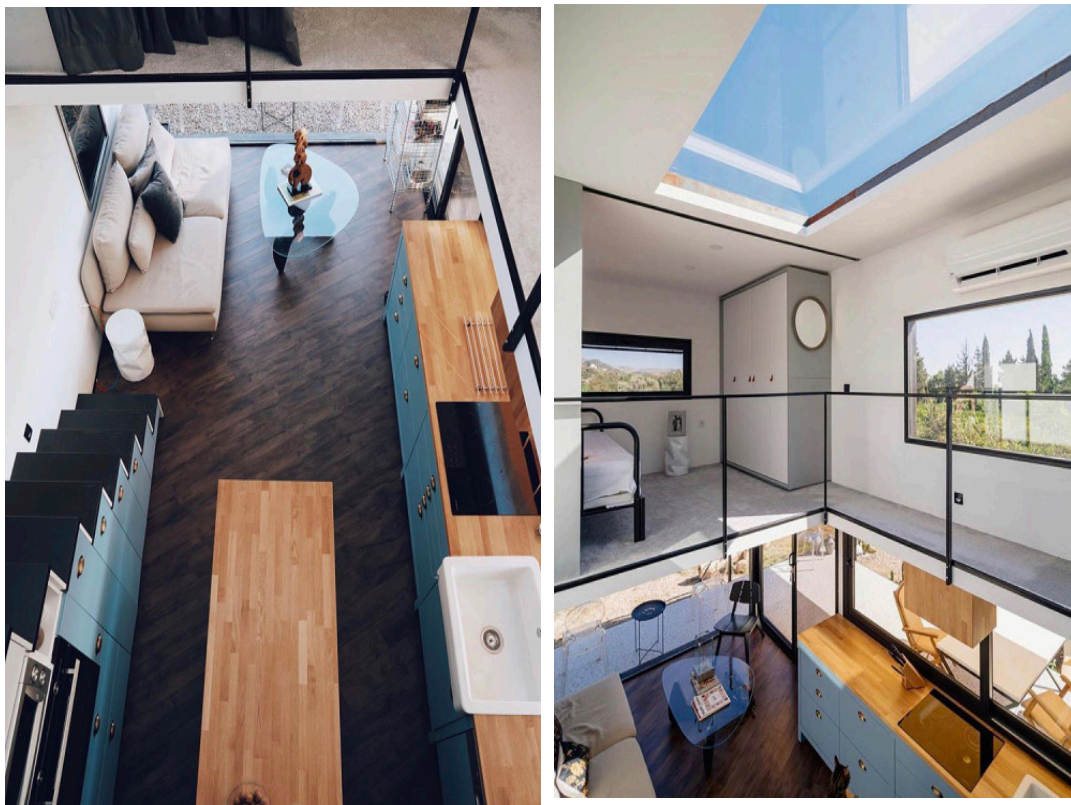


*Figure 65. Mandarin House, Bodrum Turkey by Tayfur Girdin Source: Prefabns-mallhomes*

---

The relationship between exterior and interior, which is very important for small houses, has been successfully established in this small house. Its user, Tayfur Girgin, states that they have a 44 m<sup>2</sup> usage area by adding 20 m<sup>2</sup> of space to their small 24 m<sup>2</sup> house thanks to the veranda.

Interior Architect Tayfur Girgin and his wife Özveri Girgin have built their own little house to realize their dreams of living in a small house. They explain that the reason they want to live in a small house is to maintain a healthy lifestyle with a small but concise space intertwined with nature and a life philosophy that minimizes the carbon footprint they leave on



*Figure 66. Interior of the Mandarin House, Bodrum Turkey by Tayfur Girgin Source: Prefabnsmallhomes*



---

## Case Study 11–Tiny House Village in Urla



*Figure 67. Location of the Tiny House Village © Tosbag Tiny House*

Location: Urla, Izmir

Year:2022

Tiny house village Urla Togbag was founded in 2022 by the manufacturer of tiny house. Tosbag Tiny House Village holds out a living space where you can spend time in all seasons with its social facilities besides a minimal and comfortable structure. After the pandemic, tiny house settlements were created, which are preferred by those who want to get rid of the real estate market, which is affected by high rent and purchase prices due to the change in living conditions in big cities, and even those who continue their business life at home and who want to live a more enjoyable life. It is planned to have a total of 44 tiny houses in the village of Tosbag tiny house (Tosbag Tiny House, 2022).



Figure 68. Site plan of the Tiny House Village in Urla © Tosbag Tiny House

They have started our parcel rental service, which has very few examples in Turkey. It is possible to choose the parcels where the tiny houses will be located, in different sizes of 150 and 200 m<sup>2</sup>. In other words, it creates a solution for those who want to own a tiny house, where and how they can position their houses. This project, which was first in Izmir, provides all the infrastructure, and basic needs of the building such as water, electricity, internet, security, and a parking lot in the tiny house village. (Tosbag Tiny House, 2022).



---

## Tosbag Tiny House Village Social Facilities

Children Park	Parking area
Amphitheater	Reception
Walking Path	Forest Area
Basketball court	Swimming pool
Event place	Loca



Figure 69. Renders of the Tobag Tiny Houses © Tosbag Tiny House



Figure 70. Renders of the Tobag Tiny Houses © Tosbag Tiny House

---

## Case Study 12–Vagoon House

Vagoon House; It is the pioneer in Turkey of the “Tiny House” movement, which has become popular in the world in recent years. The philosophy of small and portable houses that people prefer for many reasons; has adopted a simple and comfortable lifestyle in small spaces. This lifestyle has become an extremely useful living space for people who are accustomed to modern city life, and who want to live in harmony with nature but do not want to give up their comfort. They have the first tiny house Village sample project in Turkey, and they named these areas Vagoon Station. Vagoon Station is a project initiated to solve the land and infrastructure needs of the users, with the increasing use of Tiny House in Turkey.

At Vagoon Stations, all infrastructure, environmental protection, landscaping, and lighting are organized by us, and electricity and water are billed to users with separate meters. Unlike an ordinary caravan parking lot, it serves limited users in large areas. And in these areas, it provides the service of renting the land for at least 1 year. This application has solved the problems of many people about positioning tiny houses and has enabled them to take place in a safer environment.

Currently, Vagoon House company provides services as Vagoon Station in İstanbul/Çekmeköy (2 units), İstanbul/Beykoz, İzmir/Alaçatı, Muğla Bodrum locations and cooperates with Tiny Life Resort company in Çanakkale/Assos.

At the same time, there is a workstation project consisting of Vagoon House Offices for rent, located in the İstanbul/Tasdelen station. This project provides an office in the nature environment to the increasing number of remote workers today.





*Figure 71. Work and Joy Project's Render © VagoonHosue*



*Figure 72. Work and Joy Project's Render © VagoonHosue*



*Figure 73. Work and Joy Project's Render © VagoonHosue*

---

#### 4.3.1 Conclusion

The Conceptual model described at the beginning of part 3 pointed to tiny house initiatives because of some urban planning issues. Tiny house villages were addressed in line with the main lack of affordable housing, homelessness, and the increasing number of households, and international case studies were examined. This chapter deals with the main housing problems in Turkey, which are also explained in the first part of the thesis. As in the examples of other countries, the lack of affordable housing, emergency shelter, and homeless people are among these problems. Currently, the housing problem is increasing in Turkey, especially in the city of Izmir, with increasing urban problems.

As a result, tiny house initiatives are increasing day by day, especially around Izmir. At the beginning of the movement of tiny houses in Turkey, living in harmony with nature, being sustainable and more economical, has been effective. However, the number of Tiny House Villages is very low in Turkey, mostly since they are primarily on lands owned or leased by private individuals in Turkey, but the producers, who face a lot of demand, express that Tiny House Villages will increase soon. However, these initiatives in Turkey, it has become a solution for Tiny House builders to provide their customers with infrastructure for homes and tiny house legal barriers. There are 2 tiny house villages in Izmir, but research shows that the number of these villages will increase in the future. Unfortunately, these tiny house Villages do not currently play a role as an unused house alternative by the housing authority as a housing alternative for those in urgent need of shelter (homeless people who cannot find affordable housing) in Turkey. In the case studies reviewed many Tiny House Villages, a refuge for the homeless, support community living to encourage them to start a new life. Currently, there are no Tiny house Villages like these examples in Turkey.



---

## 4.4 The Izmir City Overview

Izmir main overview, the first part of this thesis has been examined in detail under the title 1.4. The city is located at the crossroads of western and eastern trade routes, and it is Turkey's third largest city. With its 8500-year history, Izmir, Turkey's most livable city, inherits great historical and cultural wealth. With its geographical location, cultural and historical wealth, European mindset, easy transportation as a passage point between different regions (transportation is convenient by sea, land, and airways), and mild climate suitable for tourism, Izmir offers various types of tourism. The city's social and cultural atmosphere also allows for a variety of cultural and artistic activities; it has a seashore length of 629 km, of which 101 km are completely natural beaches (Izmir Provincial Directorate of Culture and Tourism, 2022).

Izmir is also a city of different nations and tolerance, where people of different cultures, lifestyles, and religious beliefs (Muslims, Christians, Jews, Armenians, and people with Greek ancestors) have coexisted peacefully for thousands of years.



*Figure 74. Izmir, Konak District Source: Enucuzu, 2022*



*Figure 75. Izmir, Inciraltı District Source: Enucuzu,2022*

As mentioned before is always an interesting city due to its historical background and geographical beauty. With its total population of more than 4 million residents as of 2021. The rapid spread of cities, particularly in developing countries, is one of the most significant post-war demographic phenomena, and it promises to grow even greater in the future. In Izmir, urban populations are expected to nearly treble to 5.1 billion by 2030.

Industrialization and urbanization, which started to make its effects felt gradually in Turkey after 1950, affected İzmir as well as other big cities. Among these effects, especially immigration and increasing population hindered its urban development. Considering the population change of İzmir over the years (shown in figure 10 in 1.4.1), the evaluations regarding the increase in the urban population become more concrete. Because it is an industrial city, İzmir, like other major cities in Turkey, attracts a large number of immigrants. When evaluating these migration flows in the province of İzmir, it is critical to consider the transportation network in and around İzmir(Güç,2017).

---

In Izmir, out-of-town coastal investments, second housing investments such as summer houses and vineyard houses, and new rural areas along the road leading to these settlements are also appealing. It can be listed as a good place for immigrants(Güç,2017).

Because of the attractive factors in Izmir and the amount of immigration it receives, it has some consequences that have a negative impact on urban development because it is above the national average. With increased immigration, there are challenges in meeting the demand for housing. As a result of this situation, the number of slums and illegal structures has increased. There is irregular urbanization that is inappropriate for the city's historical texture. New settlements are being established in landslide and agricultural areas. However, as forensic cases such as unemployment and poverty, theft and snatching, and even gangs, etc. increase over time, they become organized crime elements.

#### **4.4.1 Housing Problem and Emergencies in Izmir**

According to the research's housing emergency section, the relevant things in the housing market, the consumers who can buy housing on the demand side, the construction companies and local municipalities on the supply side, particularly the relevant central government units, and the price increase, whose policies are the main cause of the housing problem, were taken into account. Currently, it has become impossible to own a house or even rent a house in Izmir. Despite a drop in the average number of houses sold, many housing construction companies continued to build new homes and invest in the housing sector not only in major cities but also throughout Turkey. As a result, the housing sector in Turkey in general, and Izmir in particular, merits careful examination (Özsoy & Şahin, 2021).

---

Unfortunately, there have been few studies conducted to determine the factors influencing housing prices in Turkish cities. The most detailed studies, in general, are only for Istanbul. There are few studies on Izmir and other cities. As a result, the factors influencing Izmir's housing problems were also investigated in this study. Housing prices are one of Turkey's and Izmir's housing problems, and they are one of the most important factors in many studies.

As in Turkey, unemployment increased in Izmir as well, and pessimism was experienced among the local people. Consumer spending has decreased in Turkey and the real estate market has also been affected. Although some sources differ in the house price index, (ENDEKSA, 2022), (fig.76) it shows the house prices per square meter in Izmir and the most expensive is Çeşme region, it shows the expensive areas Izmir province's July 2022 sale residential prices have increased by 178.67%. The average residential price with the same specifications is \$1,725,891. The average size of a residential property for sale in Izmir is 129 square meters.

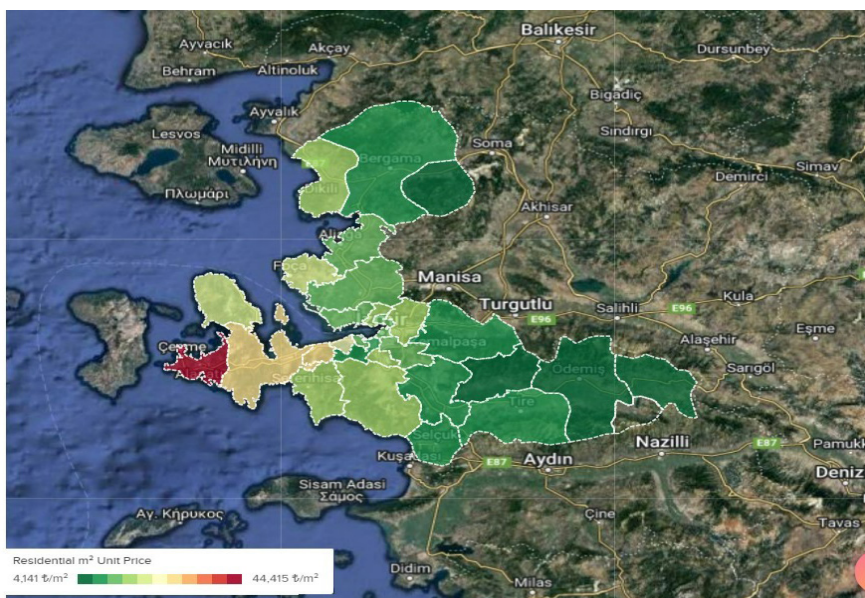


Figure 76. Housing Prices per Square-meter in Izmir,(ENDEKSA,2022



---

#### 4.4.2 The Izmir City and Natural Hazards (Earthquake) Risks

Turkey has various geographical disadvantages, such as being located on active tectonic plate boundaries, which explains why it has avalanches, floods, earthquakes, and drought-prone areas. This natural structure, however, is unavoidable; the only way to exist in such severe topography is to recognize the significance of these natural events and to take political and physical precautions. Natural disasters are often forgotten within a short period of time. Many programs intended to minimize future hazards are halted immediately after natural disasters occur. Instead of taking pre-disaster measures and preparations, only emergency recovery and post-disaster relief to catastrophe victims are implemented (Kutluca & Kivanç, 2006).

Izmir, a metropolis and Turkey's third-largest city, faces major natural disaster hazards. Flood, earthquake, landslide, and rock fall dangers have previously harmed Izmir's built-up zone. The chance of an earthquake, in particular, raises the likelihood of a disaster. However, the main safeguards and precautions cannot be taken by the responsible body. Izmir has endured as a large city for over 5000 years and has been frequently restored due to geopolitical and geological forces. Earthquakes, fires, diseases, and other natural calamities have all had a significant impact on Izmir. As a result, many edifices that would have reflected the city's historical history did not survive until today, and the current relics are often few and known only to experts and neighbors.

The city of Izmir is surrounded by topographical slopes. Furthermore, the soil geology is inadequate for settling in urban areas. Natural hazard threats, on the other hand, are increasing as a result of the growth of unlawful urban settlements and the construction of weak building types. In terms of land usage and urban settlements, Izmir presents an unusual situation. Squatter and public social housing complexes are built on the site andesitic mass (Kutluca & Kivanç, 2006).

---

In Turkey, The Disaster and Emergency Management Authority (AFAD) is in charge of disaster response coordination, which is based on an integrated, single-hazard structure that is adaptable to varied hazards (e.g., earthquakes, floods, desertification, landslides, ) (Mavroulis, S., Ilgac, M., Tunçağ, M. et al.2022).

The emergency reaction planning, which is performed through drills and exercises, is also tested under actual situation and on a wide scale in both countries. (Both Greece and Turkey) The earthquake disaster management methods were recently tested by the 30 October 2020, Mw = 7.0, Samos Island (Eastern Aegean Sea) earthquake.

The environmental effects of the earthquake included a subsequent tsunami that mainly damaged coastal residential and commercial buildings in Samos and Izmir province, slope movements, liquefaction phenomena, ground cracks, and hydrological anomalies in several sites in both affected areas (Mavroulis, S., Ilgac, M., Tunçağ, M. et al.2022).

Although structural damage was recorded on Samos, the impact was substantially greater on the highly populated province of Izmir, including multiple building collapses, despite the relatively lower peak ground accelerations locally observed (Cetin et al. 2021). Due to the number of casualties, the 2020 Samos (Aegean Sea) earthquake was the deadliest earthquake event in history.

According to official reports from Turkey's Disaster and Emergency Management Presidency (AFAD in Turkish) and Greece's General Secretariat of Civil Protection (GSCP), the earthquake died 119 people (117 in Turkey and 2 in Greece), mainly because of partial or total collapse of residential buildings also 1,034 injured, and 15,000 homeless were recorded. Immediately following the disaster, emergency shelters were established to house the impacted people.

---

In Turkey, “coordination trucks” provided by AFAD were dispatched to the location, while the Turkish Armed Forces conducted airborne scanning operations. With the participation of the Ministry of Environment and Urbanization, Highways and State Hydraulic Works teams, the 493-container living space, which was started to be built in Bayraklı (the most damaged area), was put into service on 26 November (Yılmaz, 2021). The structural damage was largely concentrated in the İzmir districts of Bayraklı, Bornova, Karşıyaka, and Konak. These are the city’s most densely populated central areas (Cetin, 2021).



*Figure 77. Shelters set up by AFAD in İzmir*

After the earthquake, the areas where the shaking is felt intensely are architectural and regulations by expert teams were also investigated. The structures in the evaluations; are undamaged, slightly-medium-heavily damaged, collapsed, and urgently to be demolished structures. Damage detection in 183,484 buildings in total the total number of destroyed buildings for the province of İzmir is 71, and the number of buildings to be demolished immediately and heavily damaged is 653 (Yılmaz, 2021).



*Figure 78. Shelters set up by AFAD in Izmir*



*Figure 79. TOKI houses in Izmir*

According to the news of Ramis Sağlam, earthquake survivors waiting to move to their new residences talked about their anguish. The lottery method is used to own a house from TOKI, that is, many victims state that they did not get a house as a result of the lottery. At the same time, one of the other problems is the quality of the newly built houses. The movers complain about the location of the new houses and the materials used in the building (Sağlam, 2022).



---

## 4.5 Conclusion

The main question of this study is whether Tiny houses can play a role as a possible policy to address housing emergencies, with reference to the example of Turkey and specifically the city of Izmir. The research was supported by the following questions.

The research objective was to investigate the Tiny house movement as an alternative option for the housing crisis to address the problem of the housing emergency on the main policies with which National Agencies understand that this specific type of intervention is subordinate to these plans. The conclusion interprets the findings in light of the conceptual model, literature review, case studies, and interviews.

The main outcome of the research refers to the need for low-cost housing accessible to the – ever-growing – most socially and economically weak parts of the population and the National Agencies and main housing policies in Turkey are studied and examined as the main issues in the first part of the thesis.

Housing is not only a problem of shelter. However, even when an attempt was made to pursue a housing policy in the period from 1923 (the establishment of the Republic of Turkey) to the present day, housing policies have been based on an understanding that sees housing only as a shelter. Firstly, housing was not considered as a living environment, and the right to housing was not considered in its entirety with the rights to work, education, health, environment, recreation, and entertainment. Due to the social conditions in which they lived, poor people with low incomes saw housing as a shelter consisting of a small room. In this case, squatting, which corresponds to shelter, is not only the result of an economic policy aimed at reducing the cost of housing in the process of labor reproduction, but also a phenomenon closely related to how the need for shelter is understood in society.

---

Secondly, housing policy was not formulated as a policy to solve the need for housing in an interrelated manner with economic, industrialization, health, education, urbanization, environment, land, and slum policies. Instead, people were encouraged and supported to have a dwelling within their means. Throughout the history of the Republic, the most prominent objective of housing policy was to increase the number of owner-occupied housing units. Instruments such as credit facilities, land facilities, tax reductions, support for building cooperatives, TOKI (Housing Development Administration of Turkey) applications, and mortgage financing systems are all geared towards realizing this objective. When the policies supporting owner-occupied housing are considered together with high rents, it has become inevitable to satisfy the segments of the population that are oriented towards housing. On the other hand, it is not a coincidence that the housing problems of the poor, who need housing and who do not have the financial means to acquire property, have worsened. Bodies, institutions, and organizations with the authority to formulate and implement policies are not unaware of the plight of the poor.

Therefore, the responsibility for these groups to live in minimum standard housing belongs to the public sector. The duty of the public sector is to integrate economic, social, and physical plans in such a way as to meet the increasing demand for housing on an optimal scale.

Currently, another important factor in housing emergencies is that the decline in home ownership is due to a combination of factors such as demographic change and internal migration. The continuous increase in the price/rent ratio indicates that rent inflation increased both due to the changes in housing prices and household expenditures in this period. Accordingly, it has become impossible to find affordable housing for inhabitants, after the global financial crisis. Therefore, finding affordable housing has become critical in many ways.



---

As previously stated, the phrase tiny house comes from the Tiny House Movement, which began in the United States. Their vision and ideas expanded, and the concept of tiny houses spread around the world. The Tiny House Movement's vision and ideas can be summarized as living freely without relying on financial institutions, downsizing to become happy, lowering the ecological footprint, and, most importantly, encouraging people to live a simpler life in a smaller space. The international case studies reveal that all of the initiatives analyzed in this thesis are at least indirectly motivated by the movement, primarily as a result of the attention surrounding housing needs for emergencies.

The investigation also reveals that it is difficult to compare the visions of the American tiny house movement, the Dutch tiny house movement, and the Australian tiny house movement projects because both countries have different planning cultures. However, these are major examples of possible housing emergencies in various countries.

After examining the international tiny house examples, the last part of the thesis was a more detailed study to understand whether Tiny houses could be a possible approach to the housing emergency with a strategy in Izmir, Turkey. In this part, many graphs which show the homeownership ratio, tenant ratio and an average number of people for household reflect the housing problem in Turkey.

Case study examples in Turkey also show how the Tiny House Movement, which originated in the United States, has spread and has started to become a new house option for many people. Unlike the international case study examples, Tiny Houses are not used in a policy currently implemented by the government in Turkey and do not address the emergency. However, it attracted the attention of many people as an affordable housing option and Tiny House villages began to be established. This aims to make it easier for people to live in tiny houses against legal barriers and increase accessibility.

---

When the housing crisis in Izmir is examined, one of the biggest problems is the unattainable prices of houses. As many data support, the residential index price in Izmir was the city with the highest increase in 2022, and as a result of the great earthquake in 2020, the issue of whether tiny houses could be a possible housing policy deserved an in-depth investigation.

## Sub Research Questions

- *Can the use of Tiny Houses in a structured way be a useful tool for emergency situations? What are the findings from international and national cases?*

According to international case studies, tiny houses appear to address a number of urban planning issues. Overall urban planning issues were identified, including changing housing demands, housing market problems, societal issues, temporary housing, and community building. Existing and potential tiny houses appear to exert enough pressure on local governments to influence government approaches to urban planning issues. Case studies in Nederland that have reflected the foundation of Tiny House Nederland are actively promoting tiny houses in the Dutch governmental context, and existing tiny house initiatives demonstrate the houses' potential to address the housing crisis. While there is widespread concern about addressing civic issues related to the housing crisis in the United States and Australia, the tiny house village movement is growing. In addition, in these international case studies, an important goal of the non-profit projects is to first provide shelter and then build deep social connections between residents and the congregation, thereby reducing the isolation of the homeless. This provides an opportunity for connection between the housed and homeless in a deeply communal hub, but it also implores advice on how to create a governance structure that is both respectful and empowering, and that allows for resident mobility.

- 
- *Can tiny house initiatives could contribute (albeit on a very small scale and subordinate to national policies) to address housing emergencies for low incomes groups ?*

According to the literature, demonstrating the benefits of well-designed compact homes also offers a chance to stimulate demand, which may contribute to cost savings. Tiny homes offer a low-cost solution for increasing the supply of affordable housing, and it is concluded that it is both more efficient and humane to reallocate resources currently devoted to shelters, as the transitional nature of many housing solutions does not adequately serve the populations seeking these services. As a result, it has already gained popularity as a permanent affordable residence option for many people. As previously stated, tiny house initiatives have become an option for homelessness and rising house prices, and steps have been taken in this regard, with some local governments supporting them. The findings indicate that national policy may be critical for low-income groups. . Tiny house initiatives can exert pressure on local governments by approaching municipalities and indicating that the initiative's goal is to actively promote tiny houses in the governmental context, and existing examples of affordable tiny house initiatives demonstrate policy possibilities. This research as the Tiny Village Kleinhuizen case study was initiated by a national governmental organization, namely Rijksvastgoedbedrijf (Governmental Real Estate Agency). A collaboration with a vacancy managing company made it possible to rent out their military grounds. Although this example is mostly focused on solving the positioning problem of tiny houses with legal barriers, it expresses the role of the Governmental Real Estate Agency on tiny houses.

- 
- *Do the above approaches can be implemented in Izmir case study ?  
The city of Izmir is investigated according to statistical reports has the highest Housing Price Index?*

Many sections of the thesis have discussed Izmir housing prices, and it has been stated that Izmir province's July 2022 sale residential prices have increased by 178.67%. ENDEKSA (2022). According to the report, Turkey has three of the top ten cities in the world where housing prices have increased the most in the last year. In the research, which covered 55 countries and 150 cities between the second quarters of 2020 and 2022, Izmir, Istanbul, and Ankara were among the top ten. Izmir ranked second, with a higher percentage on the list. As stated in the interview, Izmir is facing a major housing crisis. The tiny house movement, one of the trends that comes to mind when it comes to affordable housing in the world, has also shown its effects in Izmir and many tiny houses are sold at the request of people. In addition, as seen in national case studies, tiny house villages have started to show themselves and gain popularity in Izmir against many legal barriers. These Villages provide tiny house owners with infrastructure and most importantly legal land. And when compared to traditional houses, it is much more affordable to buy or rent. They have developed a great sympathy for tiny houses for those in need of housing in Izmir. But for now, these examples have remained in the private sector. The main research of this thesis and it would not be correct to say whether Tiny houses are possible as policy support for the housing emergency plans regarding the housing problem with Izmir reference. Because the role of The Housing Development Administration of the Republic of Turkey (TOKI) in Turkey is essential here.

---

### 4.5.1 Discussion and Suggestion

The study on tiny house projects addressed urban planning difficulties related to shifting housing demands, housing market problems, diverse socioeconomic issues, temporary housing problems, community development, ground guardianship, and housing's enormous ecological footprint in international case studies. In addition to this, the tiny house movement in Turkey and case studies are researched. All of the efforts appear to be successful in addressing these difficulties and can serve as examples of how tiny houses can be used to address urban planning issues. However, a couple of these addressed difficulties, as well as the efficacy of these tiny house initiatives, require a critical perspective.

Using tiny houses to address societal challenges can be effective; nevertheless, its effectiveness appears to be dependent on the specific societal purpose. Tiny houses appear to be effective when temporary accommodation is required. Tiny houses may be produced and erected quickly, and so appear to fulfill the Council for Health and Society's 'housing first' advice (Ruiter, 2020).

Tiny houses appear to be effective in facilitating integration, for example, for asylum seekers in Dutch, Australian, and American societies. Tiny houses, on the other hand, are not the most efficient technique for housing large numbers of people. A large apartment building may not promote integration as much as modest residences do, but it can house far more people. When tiny houses are utilized as temporary housing, the efficiency debate is also evident. As a result, it is critical to recognize the significance of having a real dwelling in a modest size. This could be useful for companies who arrange for ex-pat housing or for a recently divorced person who requires short-term lodging. Regular housing and apartments are still options in both cases, but a tiny house may be more appropriate for these groups' needs.

---

The concept of using tiny houses to address housing market concerns in Turkey's Izmir, as well as to respond to shifting housing demands and other urban emergency situations (earthquake, homeless) is feasible. One-person households can now move to a house that fits their household size thanks to the addition of a new form of dwelling to the property market. This may include the elderly who still live in a single-family home and are not ready to enter a nursery, as well as parents whose children have moved out and do not wish to live in an apartment complex.

A tiny house could also be an alternative for young singles looking for a place to live alone but do not want to live in a single-family home. Moving these persons to a suitable house appears to stimulate the flow of the housing market. It is important to note that this new addition to the housing market concentrates on a new sort of compact dwelling rather than a standard tiny house. Tiny houses, on the other hand, appear to be a depiction of the 'tiny houses' trend in Turkey.



---

### 4.5.2 Interview: Findings and Result

In earlier chapters of the thesis, not only of the influence tiny house initiatives, but the urbanization and housing emergency in Turkey and Tiny house movements and international case studies initiatives are also discussed and analyzed. This part of the research is aimed to examine what was mentioned before, tiny as possible policy strategy to address housing emergencies in Turkey/Izmir. Under the topics in the research are created 7 questions that include a Literature review on the thesis. An interview was provided with the Izmir metropolitan municipality planning department. Although the main purpose of this interview was in line with personal answers, it was to understand the possibility of tiny houses as an active role for urban planning strategists in Izmir as in other countries.

### Interview Questions

1. How do you evaluate the urbanization process of İzmir and the current situation?
2. What are the main housing problems in İzmir?
3. What is the role of municipalities for citizens in urgent need of shelter?
4. What do you think about tiny house initiatives?
5. Can tiny house initiatives affect local governments' approach to urban planning issues?
6. What urban planning issues does it address with existing tiny house initiatives?
7. In your opinion, can tiny houses be included in projects carried out by TOKİ or other administrative housing administrations? For example, could it be a housing option for affordable housing or urgent housing needs?

---

## Interview Answers

1. Izmir had an urbanization process, but now this is in very old times. By the way, let me tell you what I understand when it comes to urbanization. Urbanization does not mean just gathering and agglomeration of human communities in one place. Roughly urbanization is the fact that this gathering is done within the framework of certain scientific and technical rules. Therefore, I think that Izmir has been without this for a long time. There are some relations and agreements, but it is nothing but a structure that is later included in scientific and technical events and is sometimes a cover. I liken the current state of Izmir's urbanization process (as a typical example of Turkey's construction-based growth model) to a piece of cloth blown in the wind. It's just an agglomeration without any design, future fiction, or foresight. So, everything will get worse in the future.

2. The main housing problem is the lack of housing. More precisely, it is the absence of any planning in housing production. What I mean, there is no plan according to income groups. There is new housing for the upper income group and some for the middle-income group. I will mention it in future questions, but TOKI was established for this, but today it is far from this purpose.

3. As seen in the last earthquake related to the urgent need for shelter, temporary accommodation in tent cities, container cities or municipal properties is provided by Municipalities. However, I do not see it possible for district municipalities to meet the cost of this on their own or to maintain it for a long time.

4. In fact, Tiny House is a trend that is produced in Turkey as a solution to the inability to build, especially in areas that are closed to construction, especially in areas that are closed to construction, and that can be accessed by those who can fulfill their financial obligations at the end of the process that starts with a shed and continues with a container.

---

5. Tiny House may play a role in urban planning in the long period, but its extent is hard to predict today.

6. As I mentioned in question 4, the tiny house was not produced as a solution to a planning problem, but we observe that the increasing number of tiny houses and tiny house villages are now an alternative housing sector.

7. When it comes to the development of areas that cannot be built, I'm sure TOKİ will take care of this Tiny House business, but as I said, it will not be for the solution of the housing problem.

### **4.5.3 Future Research**

Tiny houses continue to be such a popular trend, not only because they are an economical and environmentally friendly option, also these are possible option for housing emergencies. Considering the earthquake reality in cities like Izmir, housing gives confidence in human interaction. For example, movable small houses in natural disaster areas can be a housing option where disaster victims can take shelter. Therefore, in Turkey, which is in the earthquake zone, the interest in small houses may increase over time.

Another application area can be a solution to temporary accommodation needs in agricultural areas where seasonal workers work. Seasonal workers can live in healthy conditions with low wages during the working season in small houses built close to the lands where they work. Also, these places do not have to be containers. It can be designed as a permanent collective tiny house.

In addition to these, a tiny house can provide maximum benefit with smart interior designs for single or multiple students who live outside the city and study on higher education campuses but do not prefer to stay in student dormitories.

---

In the reality of 2020, the Covid19 global epidemic has imprisoned people in private places, namely their residences. However, being imprisoned here is a positive use in terms of protecting the self-health of the person or family and creating sterile areas protected from the risk of contamination. Individuals who spent all day in their homes for about a year began to transform both their own wishes and their spaces. If we consider this period, which creates an opportunity for the individual to listen to himself, it is seen that the small house, which is preferred as a living model intertwined with nature, reduces the space occupied by unnecessary spaces and excess items in the life of the user, is a logical option.

One of the suggestions reached in the light of the examples examined is that this type of housing appears as a permanent and sometimes temporary housing alternative, depending on the needs and wishes of the user.

In this study, the tiny house was examined as an alternative housing model and it was determined that various alternative uses could be listed in ascending order as follows.

- 1) Permanent residence
- 2) Weekend house
- 3) Accommodation for tourism purposes
- 4) Housing alternative that will suffer minimum damage from the earthquake
- 5) Suggested housing alternatives for the homeless
- 6) Portable housing alternative
- 7) Affordable housing alternative

As a result, in this research, the development of housing problems and housing models and the search for qualified interior space and living models in line with today's needs, as a solution proposal, the concept of the tiny house, which is a new concept, has been examined in many case studies, where it brings a solution to the search for shelter.

---

## Bibliography

Ahsan, M. M., & Sadak, C. (2021). « Exploring housing market and urban densification during COVID-19 in Turkey » *Journal of Urban Management*, 10(3), 218–229. <https://doi.org/10.1016/j.jum.2021.06.002>

Aksoy Khurami, E., & Özdemir Sarı, Ö. B. (2022). « Trends in housing markets during the economic crisis and covid-19 pandemic: Turkish case. Asia-Pacific » *Journal of Regional Science*. <https://doi.org/10.1007/s41685-022-00251-w>

Alcı, C. (2007). *İzmir’deki Kentsel Sorunların Üniversite Öğrencileri Üzerindeki Etkisi: Buca Örneği* (thesis) Izmir Dokuz Eylül University

Alexander, L. T. (2017). « Tiny Homes for the Homeless: A Return to Politically Engaged Community Economic Development Law? » *Journal of Affordable Housing and Community Development Law* 26(1), 39–42.

Anson, A. (2014). « “The world is my backyard”: Romanticization, thoreauvian rhetoric, and constructive confrontation in the tiny house movement » *From Sustainable to Resilient Cities: Global Concerns and Urban Efforts*, 289–313. <https://doi.org/10.1108/s1047-004220140000014013>

Ataöv, A., & Osmay, S. (2007). « Türkiye’de Kentsel Dönüşüme Yöntemsel Bir Yaklaşım » *METU JFA* 24.

Atasoy, Y. (2016). « Repossession, re-informalization and dispossession: The ‘muddy terrain’ of land commodification in Turkey » *Journal of Agrarian Change*, 17(4), 657–679. <https://doi.org/10.1111/joac.12182>

Bakker, J., Denters, B., Oude Vrielink, M., & Klok, P.-J. (2012). « Citizens’ Initiatives: How Local Governments Fill their Facilitative Role » *Local Government Studies* Vol. 38, No. 4, 395–414 *University of Twente, Enschede, The Netherlands* <https://doi.org/10.1080/03003930.2012.698240>

Balclain, P. (1996). *Introduction to social housing. Housing policy in Europe*, Routledge, London

---

Bilik, M., & Aydın, Ü. (2019). « Konut Sahibi Olma Kararlarını Etkileyen Faktörler: Lojistik Regresyon ve Destek Vektör Makinelerinin Karşılaştırılması » *Dumlupınar Üniversitesi Sosyal Bilimler Dergisi*, » (62), 184-199.

Brokenshire, S. (2018). « An Analysis of Regulatory Opportunities and Constraints to Tiny Houses on Wheels in Western Australia: Why Tiny Houses are the Next Big Thing » *Strategic Planning Officer City of Kalamunda*

Cagli, E. C. (2019). « Explosive behavior in the real estate market of Turkey » *ResearchGate* 19(3), 258–263. <https://doi.org/10.1016/j.bir.2018.10.002>

Carras, M. E. (2019). *Tiny house, big impact?': an investigation into the 'rise' of the Tiny Home Lifestyle (Thl) in the United States* (thesis). Retrieved from <https://doi.org/10.17630/10023-17821>.

Çelik, S. D. (2022). *Participatory design process in post-disaster housing production: The case of October 30, 2020 İzmir Earthquake* (thesis) İzmir Institute of Technology

Coates, B., & Wiltshire, T. (n.d.). (2018). *Joint Asia-Pacific Network for Housing Research and Australasian Housing Researchers Conference* Retrieved June 6, 2018, from ISBN: 9781925455717.

Coskun, Y. (2011). « The Global Financial Crisis and the Turkish Housing Market: Is There a Success Story? » *Housing Finance International*, 25(3), 6–14. <https://doi.org/> <https://ssrn.com/abstract=1823304>

Crabtree, L. (2016). « Self-organised housing in Australia: Housing diversity in an age of market heat » *International Journal of Housing Policy*, 18(1), 15–34. <https://doi.org/10.1080/14616718.2016.1198083>

Demirtas-Milz, N. (2013). « The regime of informality in neoliberal times in Turkey: The case of the Kadifekale Urban Transformation Project » *International Journal of Urban and Regional Research*, 37(2), 689–714. <https://doi.org/10.1111/1468-2427.12005>



---

Devrim, I. A. (2016). « Housing Policies in Turkey: Evolution of Toki (Governmental Mass Housing Administration) as an urban design tool heat » *Journal of Civil Engineering and Architecture*, 10(3). <https://doi.org/10.17265/1934-7359/2016.03.006>

Drew, R. B., & Herbert, C. E. (2013). « Postrecession drivers of preferences for Homeownership. Housing Policy Debate » 23(4), 666–687 *Taylor&Francis Online* <https://doi.org/10.1080/10511482.2013.823880>

Eğilmez, B. D. (2010). *İzmir 'de Kentsel Dönüşüm ve Dönüştürülemeyen Zorunlu Yoksulluk Halleri*. Phoenix Yayınevi.

Emekci, S. (2021). « How the pandemic has affected Turkish housing affordability: Why the housing running cost is so important » *City, Territory and Architecture*, 8(1). <https://doi.org/10.1186/s40410-021-00132-3>

Erman, T. (2016). « Formalization by the State, Re-informalization by the People: A Gecekondu Transformation Housing Estate as Site of Multiple Discrepancies » *International Journal of Urban and Regional Research*, 40(2), 425–440. <https://doi.org/10.1111/1468-2427.12349>

Eroğlu, E. (2019). *Relocation from an Inner-city Neighborhood to Peripheral Mass Housing: from Kadifekale to Uzundere*, İzmir (thesis) Middle East Technical University

Evans, K. (2018). « Overcoming barriers to tiny and small home urban integration: A comparative case study in the Carolinas » *Journal of Planning Education and Research*, 41(3), 270–281. <https://doi.org/10.1177/0739456x18788938>

Farzat, M. T. (2020). *Current Turkish Real Estate Market Cycle in Turkey* (thesis). ResearchGate. Retrieved from <https://www.researchgate.net/publication/351786335>.

Ford, J., & Gomez-Lanier, L. (2017). « Are tiny homes here to stay? A review of literature on the tiny house movement » *Family and Consumer Sciences Research Journal*, 45(4), 394–405. <https://doi.org/10.1111/fcsr.12205>

---

Genç, F. N. (2014). « Gecekonduyla Mücadeleden Kentsel Dönüşüme Türkiye’de Kentleşme Politikaları » *Adnan Menderes Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 1(1), 15–30. <https://doi.org/10.30803/adusobed.188800>

Gray, D. E. (2014). *Doing Research in the Real World*. SAGE Publications Inc.

Güç, E. (2017). *Türkiye’de Göç ve Kentleşme: İzmir Egekent-2 Toplu Konut Uygulama Örneği* (thesis). Dumlupınar Üniversitesi Sosyal Bilimler Dergisi

Hacıevliyagil, N., Drachal, K., & Eksi, I. H. (2022). « Predicting House prices using DMA method: Evidence from Turkey » *Economies*, 10(3), 64. <https://doi.org/10.3390/economies10030064>

Işıkker, F. (2014). *Forgotten People on the Street: Homeless Men in Istanbul* (thesis). Istanbul Şehir University

Kaya, B. E. (2020). *Urban Policies and Critical Analysis of Urban Transformation In İzmir: Yeşildere Case* (thesis) Izmir Institute of Technology

Keleş Ruşen. (2015). *Kent, Kentsel Siyaset Ve çevre Yazıları (1993-2014)*. Arkeoloji ve Sanat Yayınları.

Keleş, R. (2019). *100 Soruda Türkiye’de Kentleşme, Konut ve Gecekondu*. Cem yayınevi.

Kenaga, N. (2012). « Causes and Implications of the U.S. Housing Crisis, » *The Park Place Economist*. The Park Place Economist, 20(1).

Kilman, C. (2016). « Small House, Big Impact: The Effect of Tiny Houses on Community and Environment » *Undergraduate Journal of Humanistic Studies*, 2.

Kolcu, F., & Yamak, N. (2018). « Gelir ve Faiz Oranlarının Konut Fiyatları Üzerindeki Kısa ve Uzun Dönem Etkileri ». *Uluslararası İktisadi Ve İdari İncelemeler Dergisi*. <https://doi.org/10.18092/ulikidince.439535>

Korkmaz, C., & Meşhur, F. A. (n.d.). « The Effects of Changing Housing Policies on Urban Space and the Housing Problem in Turkey » *Academia*

---

Kutluca, & Kivanc, A. (2006). « The Izmir City and Natural Hazard Risks » *In 46th Congress of the European Regional Science Association: "Enlargement, Southern Europe and the Mediterranean"*.

Mangold, S., & Zschau, T. (2019). « In search of the "Good life": The appeal of the tiny house lifestyle in the USA » *Social Sciences*, 8(1), 26. <https://doi.org/10.3390/socsci8010026>

Marcuse, P., & Madden, D. (2016). *In Defense of Housing the Politics of Crisis*. Verso.

Mattingly, K., & Morrissey, J. (2014). « Housing and Transport Expenditure: Socio-spatial indicators of affordability in Auckland Cities », *Sciencedirect* 38, 69–83. <https://doi.org/10.1016/j.cities.2014.01.004>

Mavroulis, S., Ilgac, M., Tunçağ, M., Lekkas, E., Püskülcü, S., Kourou, A., Sextos, A., Mavrouli, M., Can, G., Thoma, T., Manousaki, M., & Karveleas, N. (2022). « Emergency response, intervention, and societal recovery in Greece and Turkey after the 30th of October 2020, MW = 7.0, Samos (Aegean Sea) earthquake. » *Bulletin of Earthquake Engineering*. <https://doi.org/10.1007/s10518-022-01317-y>

McAllister, M. C. (2017). « Go Tiny or Go Home: How Living Tiny May Inadvertently Reduce Privacy Rights in the Home » ,69(2). *Texas State University*

Mingoya, C. A. (2015). *Building together: Tiny House villages for the homeless: A comparative case study* (thesis) Massachusetts Institute of Technology

Mitchell, R. (2014). *Tiny House Living: Ideas for building and living well in less than 400 square feet*. Betterway Home.

Morrison, G., & Morrison, A. (2017). *Tiny House designing, building, & living*. Alpha.

Mutter, A. (2013). *Growing Tiny Houses: Motivations and Opportunities for Expansion Through Niche Markets* (thesis). IIIIEE, Lund University.

Olsson, M. (2020). *Living Tiny - An exploratory study of the tiny house movement in Sweden* (thesis).

---

Özdemir Sarı, Ö. B., & Aksoy Khurami, E. (2018). « Housing Affordability Trends and challenges in the Turkish case » *Journal of Housing and the Built Environment*. <https://doi.org/10.1007/s10901-018-9617-2>

Özdemir, D. (2010). « The role of the public sector in the provision of Housing Supply in Turkey, 1950-2009. *International Journal of Urban and Regional Research*, 35(6), 1099–1117. <https://doi.org/10.1111/j.1468-2427.2010.00974.x>

Özsoy, O., & Şahin, H. (2021). « Factors affecting housing prices in Izmir, Turkey: A quantile regression approach. » *International Journal of Housing Markets and Analysis*, 15(1), 145–164. <https://doi.org/10.1108/ijhma-11-2020-0133>

Pınar, A., & Demir, M. (2016). « The impact of social housing program on the demand for housing in Turkey: A cross-section analysis » *Applied Economics and Finance*, 3(4). <https://doi.org/10.11114/aef.v3i4.1678>

Polat, Z. A. (2019). « İmar barışı” Düzenlemesinin Yerel yönetimler düzeyinde Etkilerinin Analizi » *Journal of Planning* <https://doi.org/10.14744/planlama.2019.04796>

Ruiter, J. de. (2020). *Tiny Houses as a Solution for Urban Planning Issues* (thesis) Faculty of Spatial Sciences University of Groningen

Salkind, N. J. (2010). *Encyclopedia of Research Design*. SAGE reference.

Sarı, Ö. B. (2015). « Konut Üretiminde Aşırılık ve Stok Boşluk Oranları: Yenimahalle ve Altındağ Örnekleri » *Konut içinde Ankara: TMMOB Şehir Plancıları Odası*, 73-84.

Saxton, M. W. (2019). *Environmental Impacts of Tiny Home Downsizers: A Call for Research*. (thesis): Ph.D. Environmental Design & Planning Advisor: Annie R. Pearce, John Wells, Frederick Paige, Kevin Jones, 16–29. <https://doi.org/10.13140/RG.2.2.10711.73123>

Schenk, K. (2015). *Flex House: Prefabricating the Tiny House Movement* (thesis). Retrieved from [http://rave.ohiolink.edu/etdc/view?acc\\_num=ucin1428652984](http://rave.ohiolink.edu/etdc/view?acc_num=ucin1428652984) .

- 
- Shearer, H., & Burton, P. (2018). « Towards a typology of tiny houses. *Housing Theory and Society*, 36(3), 298–318. <https://doi.org/10.1080/14036096.2018.1487879>
- Shearer, H., & Burton, P. (2021). « Tiny Houses: Movement or moment? » *Housing Studies*, 1–23. <https://doi.org/10.1080/02673037.2021.1884203>
- Shlay, A. B. (2014). « Life and liberty in the pursuit of housing: Rethinking renting and owning in Post-Crisis» *America. Housing Studies*, 30(4), 560–579. <https://doi.org/10.1080/02673037.2014.963521>
- Sönmez, İ. Ö. (2012). *Kent Planlama ve Adalet İlişkisinin Değişen İçeriği*. TBB Dergisi.
- Stephen Ezennia, I., & Hoskara, S. O. (2019). « Methodological weaknesses in the measurement approaches and concept of housing affordability used in housing research: A qualitative study » *Plos One*, 14(8). <https://doi.org/10.1371/journal.pone.0221246>
- Stone, M. E. (2006). « What is housing affordability? the case for the residual income approach » *Housing Policy Debate*, 17(1), 151–184. <https://doi.org/10.1080/10511482.2006.9521564>
- Tatlıdil, E. (n.d.). « The Effect of Rapid Urbanization in Turkish City, Izmir-Karşıyaka ». *University of Ege, Dept. of Sociology And Environment Research Centre Izmir, Turkey* Retrieved March 11, 2015, from <https://www.researchgate.net/publication/268428409>.
- Tekeli, İ. (2009). *Konut Sorununu Konut Sunum Biçimleriyle Düşünmek*. Tarih Vakfı Yurt Yayınları.
- Trambley, L. (2021). « The Affordable Housing Crisis: Tiny Homes & Single-Family Zoning » *Hastings Law Journal*, 72(3). <https://doi.org/10.21203/rs.3.rs-1000000/v1>
- Tucker, R., de Jong, U., Johnson, L. C., Johnston, N., Lee, A., Michaux, F., Warner, E., & Andrews, F. J. (2021). « Microvillage: Assessing the viability of increasing supply of affordable, sustainable and Socially Integrated Small Homes » *Housing Studies*, 1–23. <https://doi.org/10.1080/02673037.2021.2014418>
-

---

Turner, C. (2017). « It takes a village: Designating “Tiny house” villages as transitional housing campgrounds » *University of Michigan Journal of Law Reform*, (50.4), 931. <https://doi.org/10.36646/mjlr.50.4.it>

Uysal, A. (2019). *Housing Production in the Last Thirty Years and Housing Question of the Poor in İzmir* (thesis).

Valk, K. V. D. (2020). « Housing Shortage and Tiny Living: Evaluating Tiny Houses as a sustainable answer to relieve the housing crisis in the Netherlands » *Maastricht Sustainability Institute* (MSI) | Maastricht University. <https://doi.org/10.13140/RG.2.2.31004.41607>

Waite, I. A. (2016). *Planning, Power, Politics: Urban Redevelopment in Istanbul* (thesis) University of California, Los Angeles

Washco, J. (2010). Book review: *Immergluck, D. 2009. foreclosed: High-risk lending, deregulation, and the undermining of America's mortgage market*. ISBN: 978-0-8014-4772-3. *Journal of Planning Literature*, 24(3), 266–267. <https://doi.org/10.1177/0885412210361493>

Williams, D. (2014). *The Big Tiny: A built-it-myself memoir*. Blue Rider Press, a member of Penguin Group (USA).

Wilson, A., & Boehland, J. (2005). « Small is beautiful U.S. house size, resource use, and the environment. » *Journal of Industrial Ecology*, 9(1-2), 277–287. <https://doi.org/10.1162/1088198054084680>

Yener, Ç. (2011). « The Global Financial Crisis and the Turkish Housing Market: Is There a Success Story? », 25(3), “6–14. *Housing Finance International*

Yıldırım, S. (2010). « 2008 yılı küresel ekonomi krizinin dünya ve Türkiye ekonomisine etkileri » *KMÜ Sosyal Ve Ekonomik Araştırmalar Dergisi*, 47-55(12). <https://doi.org/https://hdl.handle.net/20.500.12462/4949>

Yin. (2003). *Case study research: Design and methods*. Sage Publications

Zoelen, A. G. V. (2021). *Tiny Houses: A History Thesis on the Tiny House Movement* (thesis). © 2021 Anneke Groenininx van Zoelen.



---

## Sitography

Almere. Tiny House Nederland. (2020, April 22). Retrieved June 19, 2022, from <https://tinyhousenederland.nl/almere/>

Beloved community village. Colorado Village Collaborative. (n.d.). Retrieved June 18, 2022, from <https://www.coloradvillagecollaborative.org/beloved-community-village>

Bouwexpo tiny housing. Woningbouwatelier. (2022, April 19). Retrieved June 19, 2022, from <https://woningbouwatelier.nl/experiment/bouwexpo-tiny-housing/>

Community First! village. Mobile Loaves & Fishes. (2022, June 15). Retrieved June 18, 2022, from <https://mlf.org/community-first/>

DIT Jaar Nog Minder Woningaanbod voor Jan Modaal. Jazeker. De Hypotheker. (n.d.). Retrieved June 19, 2022, from <https://www.hypotheker.nl/actueel/nieuwsberichten/2020/dit-jaar-nog-minder-woningaanbod-voor-jan-modaal/>

Episodes. Living Big in a Tiny House. (1969, December 31). Retrieved August 28, 2022, from <https://www.livingbiginatinyhouse.com/episodes/>

Endeksa.com. (n.d.). Retrieved June 14, 2022 <https://www.endeksa.com/en/analiz/izmir/endeks/for-sale/house> <https://www.endeksa.com/en/analiz/izmir/endeks/for-sale/house>

Endeksa.com. (n.d.). Retrieved August 29, 2022, from <https://www.endeksa.com/tr/analiz/izmir/endeks/satilik/konut>

Gazetesi, E. (2022, March 23). Depremzedeleri Bir Kez de Toki Yıktı. Evrensel.net. Retrieved July 12, 2022, from <https://www.evrensel.net/haber/457693/depremzedeleri-bir-kez-de-toki-yikti>

Harris transportable housing. launchhousing.org.au. (n.d.). Retrieved June 20, 2022, from <https://www.launchhousing.org.au/harris-transportable-housing-project>

---

Home loan. Loan Calculation | Calculation Tools | Ziraat Bankası. (n.d.). Retrieved August 25, 2022, from <https://www.ziraatbank.com.tr/en/calculation-tools/loan-calculation/home-loan>

(ICC), I. C. C. (n.d.). 2018 international residential code (IRC): ICC Digital Codes. 2018 INTERNATIONAL RESIDENTIAL CODE (IRC) | ICC DIGITAL CODES. Retrieved June 22, 2022, from <https://codes.iccsafe.org/content/IRC2018/appendix-q-tiny->

Izmir Provincial Directorate of Culture and Tourism. (n.d.). About The City. General information. Retrieved August 26, 2022, from <https://izmir.ktb.gov.tr/EN-239196/general-information.html6>

Jonker, G. doorM. (2017, March 23). Omgevingswet 2018 – wat Betekent Het voor tiny houses? Tiny House Nederland. Retrieved June 19, 2022, from <https://www.tinyhousenederland.nl/omgevingswet-2018-wat-betekent-het-voor-tiny-houses/>

Jonker, M. (n.d.). Kleinhuizen voegt Waarde Toe in Zeist. TinyFindy. Retrieved June 19, 2022, from <https://www.tinyfindy.com/kleinhuizen-voegt-waarde-toe-in-zeist/>

Knightfrank.com/research. (2021). (rep.). Global Residential Cities Index Q2 2021. McCombes, S. (2022, May 5). Case study: Definition, Examples & Methods. Scribbr. Retrieved June 24, 2022, from <https://www.scribbr.com/methodology/case-study/>

Punch, K. F. (2014). Introduction to social research quantitative and qualitative approaches. SAGE.

Residential property price index - tcmb.gov.tr. (n.d.). Retrieved June 30, 2022, from <https://www.tcmb.gov.tr/wps/wcm/connect/21c8c007-4006-45ee-bbc2-852f396a23f0/RPPI.pdf?MOD=AJPERES&CACHEID=ROOTWORKSPACE-CE-21c8c007-4006-45ee-bbc2-852f396a23f0-nkNb8EF>

Saglam, M. (n.d.). Turkey's middle class priced out of home ownership. Al. Retrieved June 20, 2022, from <https://www.al-monitor.com/originals/2022/05/turkeys-middle-class-priced-out-home-ownership>

The top tiny houses of 2019. Living Big in a Tiny House. (n.d.). Retrieved June 24, 2022, from <https://www.livingbiginatinyhouse.com/episodes/the-top-tiny-houses-of-2019/>

Thelwell, K. (2021, April 13). What to know about the Dutch housing crisis. The Borgen Project. Retrieved June 19, 2022, from <https://borgenproject.org/dutch-housing-crisis/>

---

Tiny Home Builders. (n.d.). Tiny House Map. Tiny Home Builders. Retrieved June 27, 2022, from <https://www.tinyhomebuilders.com/map>

Tiny Home Village. Community Services. (2021, December 16). Retrieved June 19, 2022, from <https://www.bernco.gov/community-services/housing-services-programs/tiny-home-village/>

Tiny Homes Foundation. (2016, August 02). Australia's first Tiny Home Project approved for NSW Homeless. Tiny Homes Foundation. Retrieved June 20, 2022, from [https://www.tinyhomesfoundation.org.au/australia\\_s\\_first\\_tiny\\_home\\_project\\_approved\\_for\\_nsw\\_homeless](https://www.tinyhomesfoundation.org.au/australia_s_first_tiny_home_project_approved_for_nsw_homeless)

Toki (n.d.). Retrieved June 14, 2022, from <https://www.toki.gov.tr/en/>  
Tosbag Tiny House. Inves. (n.d.). Retrieved June 26, 2022, from <https://tosbagtiny-house.com>

Tosbag Tiny House. Inves. (n.d.). Retrieved June 26, 2022, from <https://tosbagtiny-house.com/>

Tumbleweed Tiny House Company - going tiny since 1999. Tumbleweed Houses. (2022, August 16). Retrieved August 28, 2022, from <https://www.tumbleweedhouses.com/>

Weessies, R. (n.d.). Boek Belicht tiny houses in Almere. Architectenweb. Retrieved June 19, 2022, from <https://architectenweb.nl/nieuws/artikel.aspx?ID=46499>

Wie is Marjolein. TinyFindy. (n.d.). Retrieved June 19, 2022, from <https://www.marjoleininhetklein.com/over-marjolein/wie-is-marjolein/>

Yılmaz, E. E. (n.d.). İzmir depremi'nin üstünden 1 Yıl Geçti, yitirilen 117 canın Acısı Dinmedi. Anadolu Ajansı. Retrieved July 11, 2022, from <https://www.aa.com.tr/tr/gundem/izmir-depreminin-ustunden-1-yil-gecti-yitirilen-117-canin-acisi->

