

A STUDY ON PHYSICAL RESILIENCE OF
URBAN TRANSFORMATION IMPLEMENTATIONS IN TURKEY
UNDER THE LAW NUMBERED 6306

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submitted by **UMUTCAN ÜSTÜNCAN** in partial fulfillment of the requirements
for the degree of **Master of Science in Earthquake Studies, Middle East
Technical University** by,

Prof. Dr. Halil Kalıpçılar
Dean, Graduate School of **Natural and Applied Sciences**

Prof. Dr. Ayşegül Askan Gündoğan
Head of the Department, **Earthquake Studies**

Assoc. Prof. Dr. Meltem Şenol Balaban
Supervisor, **City and Regional Planning Dept., METU**

Examining Committee Members:

Prof. Dr. Nil Uzun
City and Regional Planning Dept., METU

Assoc. Prof. Dr. Meltem Şenol Balaban
City and Regional Planning Dept., METU

Assist. Prof. Dr. Bekir Özer Ay
Architecture Dept., METU.

Prof. Dr. Özge Yalçın Ercoşkun
City and Regional Planning Dept., Gazi University

Assoc. Prof. Dr. Kübra Cihangir Çamur
City and Regional Planning Dept., Gazi University

10.12.2021



I hereby declare that all information in this document has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conduct, I have fully cited and referenced all material and results that are not original to this work.

Name, Surname: Umutcan, Üstüncan

Signature:

ABSTRACT

A STUDY ON PHYSICAL RESILIENCE OF URBAN TRANSFORMATION IMPLEMENTATIONS IN TURKEY UNDER THE LAW NUMBERED 6306

Üstüncan, Umutcan
Master of Science, Earthquake Studies
Supervisor: Assoc. Prof. Dr. Meltem Şenol Balaban

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The physical development that ignores the unique dangers of Turkey in the process of urbanization and subsequent urban transformation which has created today's settlements consisting of large risk pools. This is due to disasters with great loss, especially earthquakes; the intervention of a non-market hand, in other words, the intervention of the state was inevitable. This intervention was aimed to be done with the Law Numbered 6306 published in the Official Gazette on May 31, 2012. The law was enacted with the name of "Transformation of Areas Under Disaster Risk", taking into account the effect of legal legislation on transforming physical space as an urbanization strategy.

The basis of this study is based on that research question "Do the urban transformation implementations applied in risky areas in Turkey within the scope of Law Numbered 6306 actually eliminate the disaster risk and increase the physical resilience in accordance with their original purpose?"

Therefore, within the scope of this law study, only the “Risky Areas” are focused on, rather than risky buildings and reserve areas that are defined in the Law. Risky areas, on the other hand, were examined considering mainly their spatial characteristics and standards.

As a result of these studies, although the structural problems of buildings were overcome in the urban transformation implementations carried out with the 6306, it was observed that the urban problems which indicate an increase in disaster risks instead of an overall reduction within the understanding of resilient cities became profounder in all layers.

Keywords: Physical Resiliency, Law Numbered 6306, Ankara, İstanbul and Tavşanlı.

ÖZ

TÜRKİYE’DEKİ 6306 SAYILI KANUNA DAYALI KENTSEL DÖNÜŞÜM UYGULAMALARININ FİZİKSEL DİRENÇLİLİĞİ ÜZERİNE BİR ÇALIŞMA

Üstüncan, Umutcan
Yüksek Lisans, Deprem Çalışmaları
Tez Yöneticisi: Doç. Dr. Meltem Şenol Balaban

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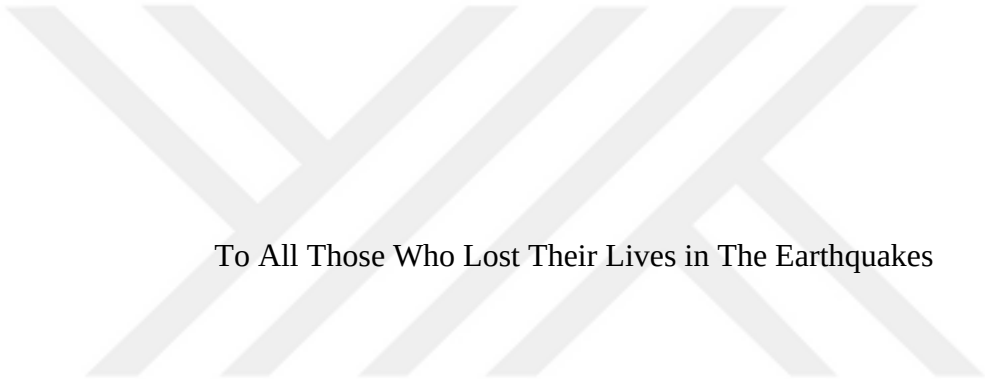
Kentleşme ve müteakip kentsel dönüşüm sürecinde Türkiye coğrafyasının kendine has tehlikelerini göz ardı eden fiziksel gelişiminin büyük risk havuzlarından oluşan günümüz yerleşim yerlerini yarattığı yıllar boyunca gözlemlenmektedir. Yaşanan büyük kayıplı afetler özellikle de deprem nedeniyle ortaya çıkan bu duruma; piyasa dışı bir elin müdahalesi, diğer bir deyişle kamu elinin müdahalesi kaçınılmaz olmuştur. Bu müdahalenin 31 Mayıs 2012 tarihinde Resmî Gazetede yayımlanan 6306 Sayılı Kanun ile yapılması amaçlanmıştır. Kanun, “Afet Riski Altındaki Alanların Dönüşümü” adıyla yasal mevzuatın kentleşme stratejisi olarak fiziksel mekânı dönüştürmeye etkisi dikkate alınarak çıkarılmıştır.

Bu çalışmanın temeli “Türkiye’de 6306 Sayılı Kanun kapsamında “Riskli Bölgelerde” yürütülen kentsel dönüşüm proje uygulamaları, asıl amacına uygun olarak afet riskini fiilen ortadan kaldırmakta ve fiziksel dirençliliği arttırmakta mıdır?” araştırma sorusu üzerine kurulmuştur.

Dolayısı ile bu çalışma kapsamında sadece 6306 Sayılı Kanun ile dönüştürülen kentsel mekanlar incelenerek cevaplar aranmıştır. Ayrıca; kanun kapsamında riskli binalar ve rezerv alanlar yerine sadece kanun ile tanımlanan “Riskli Alanlar” üzerine odaklanılmaktadır. Riskli alanlar ise mekansal özellikleri ve standartlar dikkate alınarak incelenmiştir.

6306 Sayılı Kanun ile yapılaşan kentsel dönüşüm proje uygulamalarında bina özelindeki yapısal sorunların aşıldığı düşünülse de bu çalışma sonucunda dirençli kentler açısından afet riskinin bütünde azaltılması yerine aksine arttıran kentsel sorunların tüm katmanlarda daha da derinleştiği gözlemlenmiştir.

Anahtar Kelimeler: Fiziksel Dayanıklılık, 6306 Sayılı Kanun, Ankara, İstanbul ve Tavşanlı.



To All Those Who Lost Their Lives in The Earthquakes

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TABLE OF CONTENTS

ABSTRACT.....	v
ÖZ	vii
ACKNOWLEDGMENTS	x
TABLE OF CONTENTS.....	xi
LIST OF TABLES.....	xiv
LIST OF FIGURES	xvi
LIST OF ABBREVIATIONS.....	xviii
ABBREVIATIONS	xviii
CHAPTERS	
1 INTRODUCTION	1
1.1 Basis of the Problem Definition	4
1.2 Literature Search for the Law Numbered 6306.....	8
1.3 Contributions of the Research Study.....	11
1.4 Research Methodology.....	12
1.4.1 Research Questions	15
1.4.2 Data Collection	16
1.5 Limitations of the Thesis.....	18
1.6 Structure of the Thesis.....	19
2 AN INTERNATIONAL VIEW AT DISASTER MANAGEMENT.....	21
2.1 The Place of Disaster in the Concept of Risk.....	22

2.2	The Evolution of Disaster Risk Reduction	25
2.3	Understanding the Resilience as an International Strategy for DRR.....	28
2.3.1	Defining the Concept of Resilience.....	28
2.3.2	Urban Resilience in International Literature	31
2.3.3	Urban Resilience Assessment Framework	38
2.4	Summary of the Chapter	39
3	A NATIONAL VIEW AT TRANSFORMATION OF URBANIZATION....	43
3.1	Historical Development of Urbanization and Subsequent Transformation	
	44	
3.1.1	Historical Development in the West World	45
3.1.2	Historical Development in Turkey	48
3.2	General Structure of Urban Transformation Process in Turkey	69
3.3	A Law Based Review: Law Numbered 6306 on Transformation of Areas Under Disaster Risk.....	73
3.4	Summary of the Chapter	77
4	ANALYSIS OF SELECTED CASE STUDY AREAS	
	TRANSFORMED UNDER THE LAW	81
4.1	Evaluation Criteria	82
4.2	Area Selection for the Analysis of Case Studies	85
4.3	Introduction and General Information of Selected Case Areas	95
4.3.1	Ankara	96
4.3.2	Kütahya.....	105
4.3.3	İstanbul	107
4.4	Analysis of Case Study Areas.....	110
4.4.1	Quantitative Analysis	110

4.4.2	Qualitative Analysis	145
4.5	Overview	146
4.5.1	Empirical Evaluation	146
4.5.2	Factorial Evaluation	162
5	CONCLUDING REMARKS AND PROPOSALS	177
	REFERENCES	181
	APPENDICES	189
A.	Law Numbered As 6306	189
B.	In - Depth Interview Details.....	216
C.	Documents of Case Study Areas with the Permission to Share	223

LIST OF TABLES

TABLES

Table 1.1 The Process of Formulating Research Questions.....	15
Table 1.2: Expert Stakeholders in the Urban Transformation System.....	16
Table 1.3: The Quantitative Data Collection Records.....	17
Table 2.1: The International Development of Disaster Risk Reduction	26
Table 2.2: UNISDRR 10 Dimensions For Making Cities Resilient.....	33
Table 2.3: Rockefeller Foundation's 4 - Dimensional Analysis for Making Cities Resilient.....	35
Table 2.4: OECD's 4-Dimensional Analysis for Making Cities Resilient.....	37
Table 2.5: The Place of Resilience in Urban Transformation	40
Table 3.1: Historical Development of Urban Transformation in the West World..	47
Table 3.2: Chronology of Elections, Disasters and Laws on Amnesties, Squatters, Flat Ownership Regime and Urban Transformation processes (Prepared by Senol Balaban in 2019 based on TMMOB-SPO 2002, YSK 2018, Official Gazette 2018)	60
Table 3.3: Property Relations in Turkey	67
Table 3.4: General Structure of Urban Transformation in Turkey.....	71
Table 3.5: Distribution of The Risky Areas in Turkey.....	75
Table 4.1: Evaluation Criteria Table	83
Table 4.2: Area Selection Algorithm.....	86
Table 4.3: Area Selection for the Analysis of Case Studi	89
Table 4.4: Standart Urban Infrastructure of the Transformation Area (Çin Çin)..	116
Table 4.5: Standart Urban Infrastructure of the Transformation Area (Altıkaraağaç)	120
Table 4.6: Standart Urban Infrastructure of the Transformation Area (Türk - İş)	127
Table 4.7: Standart Urban Infrastructure of the Transformation Area (Demetevler)	135

Table 4.8: Standart Urban Infrastructure of the Transformation Area (Hatip Stream)	139
Table 4.9: Standart Urban Infrastructure of the Transformation Area (Tavşanlı)	144
Table 4.10: General Compilation of Physical Analysis Results	147
Table 4.11 Percentage Change Assessment of Physical Analysis Results	159
Table 4.12: Transformation Algorithm of Disaster Risky Areas under the Law Numbered 6306	161
Table 4.13 The Professions of The Interviewers	163
Table 4.14 In – Depth Interview Details	175
Table 5.1 Discussion Areas for the Revision of the Law Numbered 6306	179
Table 5.1 (continued)	180

LIST OF FIGURES

FIGURES

Figure 1.1: Tectonic plates beneath the country (Okay, 1999).	5
Figure 1.2: Disaster Risk At Urban Transformation Areas In Istanbul (Alp, 2019).	10
Figure 2.1: The Process of Anti – Fragility I.....	30
Figure 2.2: The Process of Anti – Fragility II	31
Figure 2.3: Stages of Disaster Risk Management	32
Figure 3.1: Technical Procedures of the Urban Transformation Project Until the Application	76
Figure 3.2: Urbanization Cycles in Cities of Turkey	78
Figure 4.1: Hermann Jansen Plan of Ankara.....	97
Figure 4.2: River Network of East Ankara Metropolitan.....	98
Figure 4.3: Altıkaraağaç (Illegal Housing).....	99
Figure 4.4: Hatip River (Risky Ground Condition – Flood Field).....	100
Figure 4.5: Türk - İş (Block-Based Mass Housing)	102
Figure 4.6: ÇinÇin (Illegal Housing).....	103
Figure 4.7: Demetevler (Parcel-Based Flat Ownership Regime).....	104
Figure 4.8: Tavşanlı (Risky Ground Conditions)	107
Figure 4.9: South Reserve Area.....	108
Figure 4.10: Atış Alanı (Parcel-Based Flat Ownership Regime)	109
Figure 4.11: Albayrak (Block-Based Mass Housing)	110
Figure 4.12: Location of the Case Study Area (Çin Çin)	112
Figure 4.13: Location of the Case Study Area (Altıkaraağaç)	117
Figure 4.14: Location of the Case Study Area (Albayrak).....	122
Figure 4.15: Location of the Case Study Area (Türk - İş).....	125
Figure 4.16: Location of the Case Study Area (Atış Alanı)	128

Figure 4.17: Location of the Case Study Area (Demetevler)	132
Figure 4.18: Location of the Case Study Area (Hatip Stream).....	137
Figure 4.19: Location of the Case Study Area (Tavşanlı)	141
Figure 4.20. Study Areas in Turkey Earthquake Hazard Map.....	151
Figure 4.21. The Ages / Professional Experiences of The Interviewers.....	164



LIST OF ABBREVIATIONS

ABBREVIATIONS

AFAD: Disaster and Emergency Management Presidency – *Afet ve Acil Durum Yönetimi Başkanlığı*

AOÇ: Atatürk Forest Farm – *Atatürk Orman Çiftliği*

BC: Before Christ – *Milattan Önce*

DOP: State Partnership Share – *Devlet Ortaklık Payı*

DRR: Disaster Risk Reduction – *Afet Riski Azaltımı*

DSİ: State Water Works – *Devlet Su İşleri*

EAFZ: East Anatolian Fault Zone – *Doğu Anadolu Fay Zonu*

EQ: Earthquake – *Deprem*

GIS: Geographical Information Systems – *Coğrafi Bilgi Sistemleri*

GLI: West Lignite Enterprise – *Garp Linyit İşletmeleri*

GOP: Gazi Osman Pasha – *Gazi Osman Paşa*

GYO: Real Estate Investment Trusts – *Gayrimenkul Yatırım Ortaklığı*

HA: Hektares – *Hektar*

H: Height – *Yükseklik*

ISTOÇ: Istanbul Wholesalers Market – *İstanbul Toptancılar Çarşısı*

JICA: Japan International Cooperation Agency – *Japonya Uluslararası Kalkınma Ajansı*

KAKS: Construction Area Coefficient / Construction Area – *Kat Alanı Kat Sayısı / İnşaat Alanı*

KIPTAS: Housing Development Plan, Industry and Trade Joint Stock Company – *İstanbul Konut İmar Plan Sanayi ve Ticaret Anonim Şirketi*

KOP: Public Partnership Share – *Kamu Ortaklık Payı*

KSSS: Small and Medium-Sized Art Industry Site – *Küçük Sanat Sanayii Sitesi*

METU: Middle East Technical University – *Orta Doğu Teknik Üniversitesi*

MIT: National Intelligence Organization – *Millî İstihbarat Teşkilâtı*

NAFZ: North Anatolian Fault Zone – *Kuzey Anadolu Fay Zonu*

OECD: Organisation for Economic Co-operation and Development – *Ekonomik İş Birliği ve Kalkınma Örgütü*

OSB: Organized Industrial Zone – *Organize Sanayi Bölgesi*

OSTIM: Middle East Industry and Trade Center – *Orta Doğu Sanayi ve Ticaret Merkezi*

RS: Remote Sensing – *Uzaktan Algılama*

SWOT: Strength, Weakness, Opportunity and Threat – *Güçlü, Zayıf, Fırsat ve Tehdit*

TAKS: Floor Area Coefficient / Coefficient – *Taban Alanı Kat Sayısı / Katsayı*

TCDDY: State Railway of the Republic of Turkey – *Türkiye Cumhuriyeti Devlet Demir Yolları*

TIKA: Turkey International Cooperation Agency – *Türkiye Uluslararası Kalkınma Ajansı*

THY: Turkish Airlines – *Türk Hava Yolları*

TOFAŞ: Turkey Automobile Factories Joint Stock Company – *Türkiye Otomobil Fabrikaları Anonim Şirketi*

TOKİ: The Mass Housing Administration – *Toplu Konut İdaresi*

UK: United Kingdom – *Birleşik Krallık*

UNDP: United Nations Development Programme – *Birleşmiş Milletler Kalkınma Programı*

UNISDRR: United Nations International Strategy for Disaster Risk Reduction – *Afet Riski Azaltımı İçin Birleşmiş Milletler Uluslararası Stratejisi*

USA: United States of America – *Amerika Birleşik Devletleri*

YTU: Yıldız Technical University – *Yıldız Teknik Üniversitesi*

CHAPTER 1

INTRODUCTION

“Without a plan there is disorder and arbitrariness.”

Le Corbusier

As a beginning, it should not be overlooked that the urbanization of Turkey had been accelerated by the formation of a class of immovable property first spontaneously in the market and then the acquisition of legal status of that class by the relevant state authority. After this process, this structure has evolved into the “Flat Ownership” regime in which almost all of us take roles and live in. The rapid population growth resulting from the migration which was caused by the advancing technology and the industrialization that it brought with it, of course, were the factors that fueled the demand for housing. However, capital shortages and land constraints within infrastructure made it inevitable to act conjointly in society and to move towards building a structure together in the same parcel by establishing easements. Over time, the increasing demand for rent has outweighed and almost all of our cities have come under the influence of flat ownership systems. In this process; although free market system conditions caused that, the possibility of a structure in the flat ownership regime to be renewed in the market environment has been almost left due to the fact that the independent section owners are unlikely to act again unanimously over the time. Therefore, this process not only led to rapid and excessive construction that caused the formation of a building stock which is exceeding their control capacity, but also resulted in the loss of their regeneration capacity in large areas of Turkish cities, which is named as an urban absolute inertia. In this process, urban settlements consisting of large risk pools were created as a result of the physical development that was followed by ignoring the self-hazards of the geography of Turkey. In this case; the intervention of a non-market hand, in other words the intervention of the general public, was inevitable (Balamir, 1975).

Although this proposition was written almost 50 years ago before the mass housing law was even enacted, it can be said that it still remains as valid as yesterday. Almost for five decades the cities have been populated rapidly by the help of prevailing construction techniques which is reinforced concrete apartment housing across Turkey's cities where high percentage of building stock have been estimated to be "constructed with poor materials and workmanship due to insufficient or no supervision or inspections during construction processes" (Şenol Balaban, 2019: 238). Parallel to such processes rapid migration to urban areas from rural settlements since 1950's illegal establishments of housing areas on highly hazardous locations have created today's problematic urbanized areas due to legalization process of such spaces of unauthorized housing and squatters by the boost of amnesty laws that had been enacted time to time. It could be said that "such kind of legalization processes of unauthorized developments have considerable effects on the creation of today's vulnerable cities" (Şenol Balaban, 2019: 236).

Therefore, today the intervention for physical resilience of vulnerable building stock is intended to be made with the Law Numbered 6306 that has been published in the official gazette on May 31, 2012 after the losses observed in Van Earthquake in 2011 since most of the damaged buildings has found that they had no engineering consultancy during the construction process and had several non-engineered modifications on the main structure. The law was introduced as "Transformation of Areas Under Disaster Risks" which is considering the effect of the law as an urbanization strategy to transform the urban space since the existing building stock in many cities of Turkey has been found vulnerable due to earthquakes.

Having such kind of recent history of Turkey's settlements' current building stock that had been mainly produced fast just after the "flat ownership" act in our mind such an attempt from the government as enactment of Law 6306 "Transformation of Areas Under Disaster Risks" has been used for the transformation activities in many cities of Turkey since 2012 in order to create "safer spaces" than today's built-up areas towards prevailing seismic activities. Since then there have been "new" urban spaces produced in order for creating physically "resilient" housing areas with the help of this law.

At this point considering such newly transformed spaces in cities there are several questions may come to our minds like “Would the urban transformation process defined following the identification of the areas at risk of disaster lead the cities of Turkey to a change that might provide public benefit or might it expose the cities of Turkey to more risks than before with such fragmented transformations ? as being the major concerns of this study.

These questions can possibly be answered by examining the application areas of this law. With both of these possible consequences, it is believed that the Law Numbered 6306 (31.05.2012) is an emergent breaking point for the Turkish cities like proclamation of the Republic (29.09.1923), “Foreign Capital Law” (22.05.1947), “Development Law Numbered 6785” (17.01.1957), Economical Stability Decisions “(24.01.1980) or “East Marmara Earthquakes” (17.08.1999-12.11.1999).

Hence this thesis only deals with the urban spaces transformed by the Law Numbered 6306 by focusing only the “Risky Areas” rather than focusing on “Risky Buildings” and “Reserve Areas” that might be in the scope of other research studies. Risky areas is mainly examined by focusing their spatial characteristics that include planning standards like level of social and physical infrastructural supplies based on population, density and so on. However, as with every physical intervention, the urban transformation practices carried out within the framework of this law also had social and economic effects. Therefore, the socio-economic effects of the physical spaces created are also mentioned as being secondary concern within the scope of this thesis.

In this context, urban transformation implementations carried out within the scope of Law Numbered 6306 (Case study areas: Ankara, İstanbul and Kütahya) will be examined in terms of Disaster Risk, Planning Criteria and Agreement Model by means of analyzes conducted in Geographical Information Information Systems and Remote Sensing environments with the help of the Computer Aided Design programs and in-depth interviews with the stakeholders to propose a future path for a discussion of the Law Numbered 6306.

Therefore, this thesis tries to find answers to below mentioned main research question by assuming that building quality of transformed areas was increased.

The main research question is briefly:

Do urban transformation implementations, which have been applied in the "Risky Areas" within the scope of the Law Numbered 6306 in Turkey, actually eliminate the risk of disaster in accordance with its original purpose?

1.1 Basis of the Problem Definition

In these days when we leave the 22nd anniversary of the Marmara Earthquakes, we are getting closer to the Istanbul earthquakes every passing day, which have become a phenomenon for all of us. An earthquake is a danger, but there are factors that turn it a disaster risk. Although we are aware of these risks, the steps to mitigate the risks gets nowhere. The name of steps taken is urban transformation.

However, today, urban transformation has been done with the aim of eliminating urban poverty and the urban risks that it creates, but it could be claimed that it has only become a mechanism that produces urban rent. Although this mechanism aims to produce earthquake - resistant structures, it may not eliminate either urban poverty or urban risks. However, it is expected that these implementations should aim to create resilience of urban transformation to disaster risks.

Turkey has two basic characteristics regarding disasters due to earthquakes.

- Its geographical conditions sourced from location that presenting their own hazards
- Spatial development that has been monitored in urban areas for almost 75 years that might have been possibly ignoring such fact.

In this context, lands of Turkey are prone to earthquakes due to its location and ground conditions.

Whole country lies amongst three great (Eurasia, Africa and Arabian) tectonic plates.

50 questions in 2020; there are approximately 19 million buildings in Turkey, of which, 14 million residences, other than 5 million built after 2000, should be examined for earthquake risk. It is estimated that around 40% of that building stock (almost 5.6 million), including illegal buildings without license, buildings where earthquake design is inadequate, which have materials with inadequate material strength without engineering services, need to be renewed or strengthened. Ministry of Environment and Urbanization has changed its names as Ministry of Environment, Urbanization and Climate Change after accepting Paris Agreement at the date of 29.10.2021 Friday with Official Gazette No: 31643.

In reference to the data published in the Istanbul Earthquake Workshop presentations in 2019 by Istanbul Metropolitan Municipality after the Earthquakes in Istanbul; It is estimated that 48 thousand buildings will be heavily damaged, 194 thousand buildings will receive moderate and higher damage that is almost 20% of building stock and total economic loss will be 23 billion American dollar in the expected Istanbul Earthquake of 7.5 magnitude.

The last devastating earthquake ($M_w > 6.9$) occurred in our country on 23 October 2011 in the Lake Van region. In the earthquake of 7.2 magnitude that lasted 25 seconds, 644 citizens lost their lives.

Following this earthquake, the Law Numbered 6306 on the Transformation of Areas Under Disaster Risk was enacted in the official gazette on May 31, 2012.

The main purpose of the Law is defined as:

Transforming the structures in the areas at risk of disasters into healthy and safe living environments in order to prevent any loss of life as a result of disasters.

Over the intervening 8 years, it is clearly observed that almost all risky areas regardless of the housing type (gecekondu/squatter, block sites built by cooperatives or garden houses built in the flat ownership regime and so on) were transformed into two types of housing namely residences and multi – storey (mass) public housing (TOKI).

Furthermore; in most of the areas mentioned above which are declared under the Law, boundary identification remains controversial since decision criteria for the delineation of the boundaries of such risky areas are not clear.

On the other hand, planning methods are preferred in these areas with piecemeal approaches. This preference reveals plan changes that have a black hole effect on the whole plan. This preference brings with it many other problems of urbanism, that may also create disaster risk, while it only focuses on solving the problem of physical quality. This preference accepts usually the elite as stakeholder, not the poor or middle class who live in risky areas that make up the majority of the society. It seems that such preferences produce mostly urban rent generation instead of public interest, through urban transformation.

In addition to this, changes, development amnesties and development implementations made and announced by central and local governments in plans for risky areas cause an increase in value of real estate in these parts of Turkish cities (Saraçoğlu, Pürsünlerli, Çakır, 2015: 85).

Of course, building an earthquake-resistant structure is one of the criteria that eliminates disaster risk. However, looking at the concept of Disaster Risk Management, which needs to be approached from an interdisciplinary multifaceted point of view, only from this perspective (building an earthquake-resistant structure) means ignoring essences of urban planning discipline.

In order to solve the problems encountered in practice, speed up the process and increase participation by enhancing incentives, many changes have been made in the details of the Law over time that reveal the situation described just above.

These amendments are as follows:

- Within the scope of Law, at least 1.5 hectares of land size limit specified in the definition of “Risky Area” has been removed.
- The Added Value Tax rate, which is 18% in all kinds of construction activities, is taken as 1% in the urban transformation areas under disaster risk.

- Credit interest rates are reduced by providing state support. The law also provides rent assistance to beneficiaries. Moreover, it allocates housing in some special cases where the agreement model has been used.
- Evacuation procedures can be done within 2-4 months without a majority decision of the right holders in the Risky Areas.
- Within the scope of law, pasture and marginal areas are allowed to be opened to construction as reserve areas.
- Urban transformation is also allowed in the regions containing cultural and natural assets.

After Elâzığ Earthquake in 2020, amendments were also made in the Development Law numbered 3194 which aimed at “horizontal architecture”, however the law numbered 6306 was excluded from all the changes.

The exclusions, amendments and changes detailed above lead the transformation of urban regeneration activities to dense and highly populated as well as high – rise developments over time.

Finally, in our country, where development amnesties are on the agenda in every election process, it is important to remember that there are political decisions in the fundamental dynamic of the process which creates the risky areas in our cities.

Hence the main problem explored by this thesis is several urban problems could arise in manylayers within the Law Numbered 6306 and existing ones could also increase in some sense rather than the structural problems of buildings that are overcome by reconstructing the new buildings based on the recent seismic codes through the implementation phase of urban transformation projects.

1.2 Literature Search for the Law Numbered 6306

In this part of the study, the academic studies that are concerned mainly about the Law Numbered 6306, which is the main subject of the thesis, have been examined, the literature has been searched and the results have been summarized.

In a master's thesis study which was conducted, only one year after in 2013 the Law Numbered 6306 was enacted, by Faruk Aydin, it is concluded that the biggest problem in urban transformation applications is the private property problem. In order to regenerate the physical texture, it takes a lot of time to solve these private property issues. On the other hand, another obstacle to the urban transformation process is the poor socio - economic situation of the people living in these regions and the desire not to leave the region. For the solution of both private property and other problems, it is also seen that the agreement between the local authorities and the residents of the area which is subject to transformation is crucial.

According to a study which was conducted by Taner Kılıç and Seçkin Hardal in 2014, it is concluded that the main problems of Law Numbered 6306 are the central design of the process, the elimination of all kinds of local diversity, the disregard of tenants and the elimination of the property and housing rights of the poor people.

With the study conducted by Filiz Daşkiran and Duygu Ak in 2015, The Law Numbered 6306 was approached with a critical perspective and the problems created by the law were collected under three headings. These headings include the increasing role of the central authority¹, the violation of the property and housing right² and the creation of legislation that cannot be implemented³.

According to the study conducted by Ayça Çelikkilek and Melis Çakır Öztürk in 2017, it was concluded that the biggest problem in the transformation of disaster risky areas, which started with the Law Numbered 6306, is that the transformation is carried out only within the declared area boundary and it is disconnected from the upper scale plan. Consequently, the transformation is not carried out with a strategic stage and the transformation does not allow a holistic planning.

The study conducted by Türkan and Özkan Özgür in 2018 reached the conclusion that disaster risk is the second priority in the urban transformation made under the Law Numbered 6306. Urban transformation applications create fragmented solutions that lead to disconnected construction which disrupts the city's silhouette. This fragmentary approach results in the inability to construct the infrastructure in the region subject to urban transformation.

In a master's thesis study conducted by Selin Adikutlu in 2019, it was concluded that urban transformation contributes to the creation of disaster resilient cities by mitigation strategies which identify and reduce risks. However, as can be seen from the findings of the case studies of that thesis, there are some problem areas. As a result, the problem areas in urban transformation applications in the context of disaster resilience is summarized by Adikutlu as following; the long duration of implementation, the transformation models with no diversity, the ineffectiveness of the social participation as well as financial tools.

According to another study conducted by Julide and Ibrahim Alp in 2019, it can be seen in the table below which it is stated that the expropriation authority given by Law Numbered 6306 was used to forcibly confiscate areas with high land value rather than to convert districts that are really at risk of earthquakes. This situation is visualised by Julide and Ibrahim Alp which is used in figure 1.2.

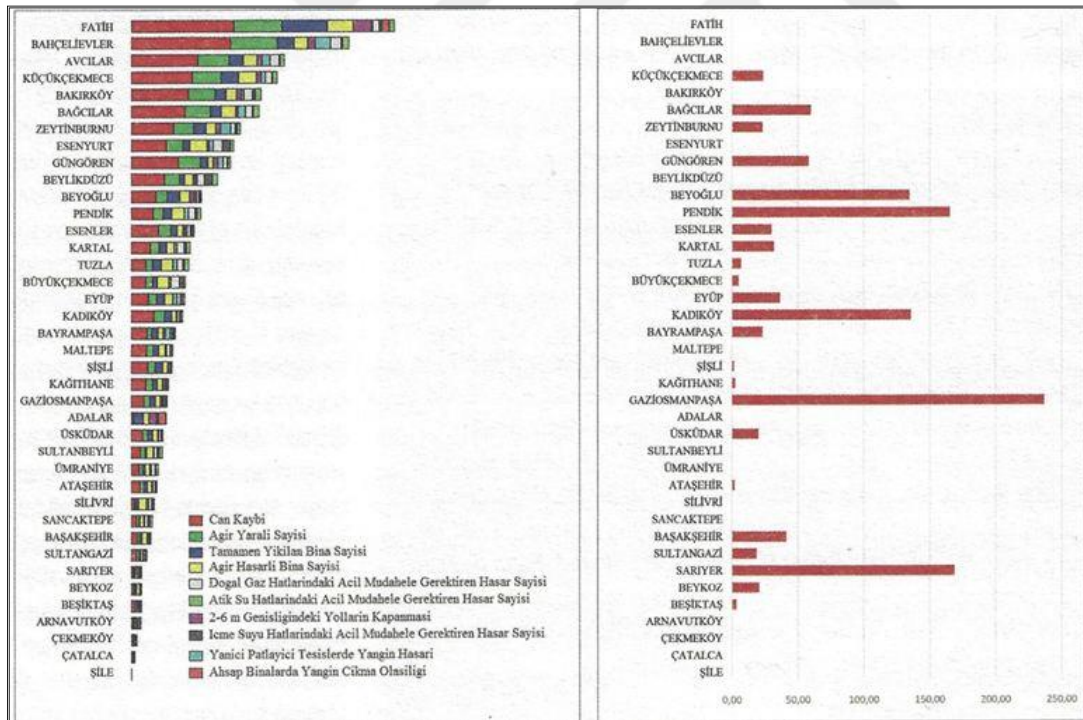


Figure 1.2: Disaster Risk At Urban Transformation Areas In Istanbul (Alp, 2019).

As can be seen, the changes made in the law and hence in the space since 2012 when the law was announced have been reflected in the literature. However, these studies have common result points. These points are detailed below.

- Poor socio - economic situation of the people living in these urban transformation regions
- The desire not to leave the regions,
- Elimination of the private property and housing rights of the poor people,
- Increasing role of the central authority, while ignoring any kind of local diversity
- Creation of legislation that cannot be implemented,
- Rent generation,
- The structure not to allow a holistic planning,
- Disconnection from upper scale plan,
- Disrupting the city's silhouette,
- Inability to construct the infrastructure,
- Long duration of the implementations,
- Disregard of the tenants and
- Ineffectiveness of social participation as well as financial tools.

Another but most important conclusion which is drawn from the literature search is that any study has not been previously examined the physical structure of the transformation areas in terms of disaster risk, planning criteria and agreement model.

1.3 Contributions of the Research Study

The Law Numbered 6306 is investigated in detail for why;

- The Law was enacted in 2012 that ensures more than 8 years of practice experience to be observed and analyzed.
- There has been any previous quantitative analysis in the areas that have been transformed by the Law Numbered 6306 which came to the agenda of the public with the earthquakes in Istanbul in 2019 summer time and earthquakes in Datça, Elâzığ and Izmir in 2020 winter time.

In this section, contributions of the research study is evaluated. This evaluation is made by identifying them through literature review, case studies and in – depth interviews.

The objective contributions to the relevant fields are summarized. Therefore, the contributions of the study areas are as follows:

- Case studies were overlapped with literature and thus study was examined in layers and a meaningful flow was created.
- As mentioned in the literature review, the first physical (spatial) analysis was made with this study in the studies carried out with the Law Numbered 6306. In this way, it has been observed quantitatively that the structural problems have been resolved with the law, but the urban problems have become deeper.
- In – depth interviews with highly diversified and experienced expert stakeholders in relevant field enabled the identification of problem areas related to the subject.
- Both verbal and numerical analyzes were made together, and analyzes were grouped according to the structures of Turkish cities and examined according to official legislation.

1.4 Research Methodology

In this section of the introductory chapter, the research methodology of this thesis is expounded by describing the sorts of research methods that are used and research questions. Following the description of the research study plan, the data collection methods of research study is stated. Moreover, it also describes how the basis of theoretical and technical framework is developed.

Problem definition at first in this research study had appeared the author's professional experiences and observations during implementation stages and afterwards of urban transformation projects since the author is a freelance city planner working for İl Bank projects as an employee of Plato Planning Company and

as a project co-manager in the Ministry of Environment, Urbanization and Climate Change.

On the basis of these empirical experiences and observations made by the author, brief primary literature review was conducted in the fields of Disaster Management, City and Region Planning and subsequent Urban Transformation in the cities of Turkey and world.

The theoretical and technical framework is discussed in two layers.

With the first one, in the theoretical framework, the research studies in the world on visionary approaches which also affects author are included.

On the other hand, the other one makes references to the techniques, which are experienced in the disaster risk management, urbanization and subsequent urban transformation processes in Turkey.

This thesis implements methodologically multi-modal technique and conducts both quantitative and qualitative researches as a strategy to achieve satisfactory learning outcomes and to answer the research questions and defend the thesis.

This thesis conducted quasi experimental design of quantitative research that evaluate subjects before and after procedure which procure relation of causality. For this purpose, before and after analyzes were made.

In this sense as a quantitative research, urban spaces that are transformed under the Law (case study areas) has been analyzed in Geographical Information Systems (GIS) and Remote Sensing (RS) environments with the help of the Computer Aided Design programs. Therefore, collected data from the different areas and years are analyzed with the help of computer aided programs Autodesk Autocad 2021, Netcad GIS 8.1, Google Earth Pro +, Adobe Photoshop cs 6, Microsoft Excel and N Vivo for students. N Vivo is only used for in depth interviews' analysis.

The Evaluation criteria which are used through these analyses are categorized as Disaster Risk, Planning Criteria and Agreement Model as a result of inferences from literature review and professional practices of the author.

Following, these analyses are clarified in the empirical analysis section to present more simple and outstanding outcomes.

This thesis also used descriptive design of a qualitative research which is used to look over the individual participants. It makes mentions of collection of data and presentation of collected information. Therefore, the main reason for using that form of research is to describe and categorize the problems and offering solutions with experts in other words with the stakeholders of that process. In this context, non probabilistic and non - random purposeful sampling was used and the maximum variety method was considered. As a qualitative research, in-depth interviews were held with the stakeholders at every possible stage of urban transformation process.

In addition, these stakeholders are categorized as producers of the urban transformation system of Turkey in 5 layers as international services¹, public services², practitioners³, civil society⁴ and theorists⁵.

An experience requirement has been set for this specialization and it is expected to have 10 years of experience in the relevant field and institution. This coincides with the date of enactment of the law. The reasons, deficiencies - positive aspects of the process, alternative solutions and finally other expressions what they want to express are discussed with each expert. Following, these interviews which are conducted with the stakeholders are clarified in the factor analysis section to present more simple and outstanding outcomes.

Finally, results from both quantitative and qualitative research studies were subjected to evaluation to answer research questions and defend the thesis.

Together with these studies, results from both quantitative and qualitative research studies later were compared with the inferences reached from literature review as a conclusion to identify that whether theoretical and technical discourse overlap or linked with the practical implementations in the case of the Turkey.

1.4.1 Research Questions

The main research question is formed as follows: based on the empirical evidences;

Do the urban transformation implementations which have been applied in the "Risky Areas" within the scope of the Law Numbered 6306 in Turkey, actually eliminate the risk of disaster at all in accordance with its original purpose?

Based upon this main research question and factorarial evidences; it is also booked into a sub research question.

Mentioned sub research question is given below.

What points should be discussed if the law is revised for the tomorrow in terms of resilience of urban transformation to disaster risks?

Table 1.1 The Process of Formulating Research Questions

Observations	The issue of disaster risk is considered only in terms of building quality, and in this context, the quality of the living space is reduced while the quality of the building is increased.
	Density is increased while ensuring the rights of contractors and local people. With this increase in density, rent is provided and the social structure of the region is changed.
Questions	Do the urban transformation implementations which are carried out in the "Risky Areas" within the scope of the Law Numbered 6306 in Turkey, actually eliminate the risk of disaster at all in accordance with its original purpose?
	What points should be discussed if the law is revised for the tomorrow in terms of resilience of urban transformation to disaster risks?

In this context, fundamental expected outcomes of this research study is indicated below.

- To reveal whether the mentioned risks are actually eliminated by urban transformation under the Law Numbered 6306 or not,
- To discuss the Law in terms of resilience of urban transformation to disaster risk in line with case studies, expert opinions and literature studies.

1.4.2 Data Collection

In order to make more comprehensive analysis and achieve outstanding outcomes, this thesis used both primary and secondary data collection methods together.

Table 1.2: Expert Stakeholders in the Urban Transformation System

Producers				
<i>A. Inter National Services</i>	<i>B. Public Servant</i>	<i>C. Practitioners</i>	<i>D. Civil Society</i>	<i>E. Theorists</i>
1. UNISDRR	<u>1. Central Government</u>	1. Civil Engineer	1. TEMA	1. Middle East Technical University
	1.1. Ministry of Environment, Urbanization and Climate Change	2. Architect	2. Turkish Earthquake Association	2. Boğaziçi University
	1.2. AFAD	3. City Planner	<u>3. Chambers</u>	
	1.3. TOKI / Emlak Konut	4. E.Q. and Disaster Manager	3.1. Chamber of Civil Engineers	
	1.4. Bank of Provinces	5. Lawyer	3.2. Chamber of Architects	
	<u>2. Local Management (Municipalities)</u>	6. Geologist	3.3. Chamber of City Planners	
	2.1. Metropolitan Management		3.4. Ankara Bar Association	
	2.2. District Management		3.5. Chamber of Geological Eng.	

Primary (advisory) data were collected by in - depth interviews which are conducted with experts who are the stakeholders of that process.

For that purpose, stakeholders of urban transformation system in Turkey within the scope of the Law Numbered 6306 has been specified. Following the specification of the stakeholders as producers, they are also categorized according to what roles they have throughout the process. A detailed information about the stakeholders has been presented above in the table 1.2.

On the other hand, quantitative data collected with the support of many official administration. A detailed information about official administrations where the quantitative data collected has been presented also below in the table 1.3.

Table 1.3: The Quantitative Data Collection Records

Urban Space	Official Administration
<i>Ankara</i>	Ministry of Environment, Urbanization and Climate Change
	Bank of Provinces
	Ankara Metropolitan Municipality
	TOKI (Refused to give information)
	Mamak District Municipality
	Altındağ District Municipality
	Yeni Mahalle District Municipality (Refused to give information)
	A Real Estate Valuation Company
	Middle East Technical University
<i>İstanbul</i>	Istanbul Metropolitan Municipality
	Bağcılar District Municipality
	KIPTAS
	Esenler District Municipality (Refused to give information)
	Emlak Konut GYO
<i>Kütahya</i>	Tavşanlı District Municipality
	A Private Planning, Design and Organization Company

Other secondary data resources which were studied in this thesis were mainly academical research studies, official reports and of course the Law Numbered 6306.

Finally, these in - depth interviews were collected by face – to - face or on the web, in written or oral form, from different channels of communication.

After being deciphered manually, the original verbal data were analyzed through the NVivo program and presented to the reader through the filter of the author.

Similarly, numerical data could have been collected from the relevant institutions for a long time, often as to be kept confidential. In fact, some institutions refused to provide information.

In these cases, as detailed below, relevant data were collected from bureau and field studies. Therefore, it is almost impossible to reach these verbal and numerical data again by the reader while examining the thesis. The possible data has already been shared.

1.5 Limitations of the Thesis

The case study analysis period of thesis coincided with a very troubled period, the Covid-19 Pandemic. In this context, both the closure periods and the remote working of institutions created serious deficiencies in data collection. It also caused in depth interviews to take place in extraordinary situations. This was also one of the reasons why Ankara and the provinces in its vicinity (Kütahya and Istanbul) are chosen for the study areas.

In the provinces in question, only the Risky Areas, whose details are specified in the attached law, were taken into account as working areas, and risky buildings and reserved areas were ignored.

Just like the period, many problems were faced during the data collection process. In this context, TOKI and its subsidiaries, among the main stakeholders, avoided providing any information. These data are gathered from Ministry of Environment, Urbanization and Climate Change for Demetevler, from relevant municipalities Altındağ and Mamak for 3 study areas (Türk-İş, Çin Çin and Altıkaraağaç) from Ankara Metropolitan Municipality which is authorized institution for Hatip Stream and from a private planning company for Tavşanlı district.

Similarly, the Bağcılar and Esenler municipalities did not want to participate in the process and the relevant data were obtained from the right holders, relevant mukhtars, official internet announcements and news.

When missing data such as population and the number of beneficiaries were needed in all areas, the relevant governships and health centers were contacted and necessary connections were established and data were obtained.

Even in this process, there was also the problem of participation. For the data that could not be found any way, it were tried to digitized from satellite images.

On the other hand, in the data obtained, the following problems were encountered due to the institutions.

- The “current” data is from the years when the first plan were made. Therefore its problematic.
- Archives are in blue-print technology instead of digital media.
- Political concerns prevent transparent information sharing. The same situation has considerably reduced the number of personel working in institutions (especially in municipalities) for a long time.

Therefore, an environment suitable for small-scale unnoticed errors has emerged. However, this situation is limited as much as possible. The study should have been evaluated within these limits.

1.6 Structure of the Thesis

This introductory chapter aims to give justification for studying areas under urban transformation within the scope of “Law Numbered 6306”. It begins with basis of the problem definition. After the literature search of the Law Numbered 6306 the chapter explains the objectives, scope and significance of thesis. Thereupon the chapter describes the research methodology which the thesis based on that leading to research questions of the thesis allied to data collection process.

The structure of the thesis involves brief of whole chapters of the research process. Further to that the thesis constitutes 4 chapter in addition to this introductory chapter.

Chapter 2 covers the theoretical framework of the study which is developed in the international sources that is about to understand the visionary background of the thesis topic.

On the other hand, chapter 3 covers the technical framework of the study which is developed in the national sources. This chapter three is about to understand the development and changes in the city planning techniques which are experienced in the disaster risk management and urban transformation processes in Turkey. Law Numbered 6306 has also been examined in further details as a “law-based review”.

The fourth chapter of the thesis includes thesis studies. The analysis of the case studies is formed of 5 parts. First part of the chapter is just structured to create connection between the framework and thesis studies. The section categorizes concepts obtained from the theoretical and technical framework for the purpose of spatial and verbal evaluation of the thesis studies. It categorizes all the concepts into three main evaluation criteria: disaster risk, urbanization criteria and agreement models within-depth interview questions. Part number two is explaining the selection process of the case study areas. Part number three is introducing the case study areas with their urbanization status which causes the formation of disaster risks. Part number four is following the spatial analysis of the case studies in terms of urbanization criteria, disaster risk and agreement models. On the other hand, part number four is also following the in-depth interviews with the stakeholders. In the last part of the chapter; overview analysis has been done. In this context; in-depth analysis was subjected to factor analysis in order to get more simple, clear and systematical results. In other respect, results of the spatial analysis is represented again in the part of “Empirical Analysis” likewise with a more simple, clear and systematical techniques.

In the last chapter of the thesis, conclusion of the thesis is proposed with the main learning outcomes. As a conclusion in this chapter and this thesis, future research and development recommendations are identified based on research study findings.

CHAPTER 2

AN INTERNATIONAL VIEW AT DISASTER MANAGEMENT

“Something is rotten in the State of Denmark.”

William Shakespeare

In this chapter of the study, the principle visions for Disaster Risk Reduction issues in disaster risk management field that could help to provide a framework will be discussed. By the help of major aspects of disaster risk management and disaster resilient cities the research study of this thesis on the urban transformation projects and their implementations under the Law of 6306 will be conducted. The compositions of definition, categorization and inferences made in this chapter will be frequently used later in the case analysis of this study. In other words, these definitions constitute a theoretical basis.

The literature on sustainability, resilience, anti-fragility and Disaster Risk Reduction in Turkey is not very rich. On the contrary, International Studies on this subject are varied as the reports of international organizations focus on resilience and Disaster Risk Reduction (DRR) as well as academic articles and books. Therefore, this chapter covers theories developed abroad.

The problems which is experienced by today's cities could be chronic problems such as environment, infrastructure, unemployment or poverty as well as sudden developing problems or acute shocks such as terrorism, financial crisis, pandemic disease, climate challenge, earthquake or flood. Therefore, preventing these problems, keeping or transferring their effects to a minimum is directly introduces the risk reduction concept.

In this context, every study carried out in the name of risk reduction also increases the resilience (Özer, 2018: 1).

For that reason, it is impossible to think about the principle visions and the concept of Disaster Risk Reduction presented in this chapter of the study independently from each other.

On the other hand; another aim of this chapter of the study is to examine city planning and its' one of the main implementation tool urban transformation within the framework of Disaster Risk Reduction and resilience principle vision.

2.1 The Place of Disaster in the Concept of Risk

In this part of the study, the definition of the risk concept and the place of the disaster in this definition will be examined. In this way, it is aimed to better understand the basics of Disaster Risk Reduction concept.

AFAD defines the disaster risk in the explanatory disaster terms dictionary that mentioned in the law numbered 6306 as:

“The possibility of loss of life, property, economic or environmental values that an event could cause under certain conditions”.

In other words; it is:

“Risk = Potential Losses” or “Risk = Hazard x Vulnerability”.

On the other hand, it is also called as “Loss Probability” in the fields of risk insurance and engineering (AFAD, 2014: 128).

In the old times before the modern period, the risks developed slowly and had predictable features, but with the globalization period, the risks evolved into a rapidly developing unpredictable character. With these features, risks threaten the capacity of today's cities to adapt the results of these risks. Therefore, cities are expected to be prepared for these suddenly developed events as well as slowly developed events. While the characteristics of the risks faced by individuals living in modern society changing, the number of these risks also tends to increase. Especially urban areas have become areas where these risks are seen intensely (Balta, 2013).

Rapid urbanization as a result of population movements and vulnerability of lower income groups to disasters in the cities have highlighted these risks (Balta, 2013).

Aware of this change and increase in risks Ulrich Beck stated that “a new sociological thought is needed in order to better understand today's society which is emerging as a result of globalization” . In this context, Ulrich Beck has defined the concept of “Risk Society”. According to Beck, today's modern society (late [second] modern society) has a different structure than the old modern society. The social structure created by globalization has been named as risk society by Beck. While Beck said there were many responses and solutions for the uncertainties produced by the society in the first modernism period which lasted from the 18th century (industrial revolution) to the 1970s (oil crisis), there are no responses and solutions to today's sudden developing unexpected problems (Beck, 2011).

After the earthquake in the socialist system in the late modern period, the victory of capitalism was declared in the interpretation of modernism. Consequently, the role of the market increased. However, this model especially collapses in an unexpected event (uncertainty) and no response and solution could be found to an unexpected event.

With this respect Ulrich Beck underlined that the distinction must be made between a risk society and a disaster society, while expressing that in a disaster society, the “too late” argument will be essential and also the panic of carelessness in other words organized irresponsibility will be experienced. On the other hand, Beck defines the risk society as a society where it can be taken measures to protect against future disasters and reduce their effects in a structure that cannot cope with the uncertainties and its' consequences. However, the financial system could collapse and disasters can pose a threat to all humanity, but what matters is that how you get out of all these through measures taken. Beck also stresses that there is no rational way to measure risks at all, and points out that we are facing a completely new situation that we are trying to overcome (Beck, 2011).

However, it would still be optimism to think that risks have been eliminated before the risk society (Ekberg, 2007: 343-345).

Because, as can be seen in today's cities, these old risks are already ongoing and we cannot overcome today's risks with the intellectual approach and structure of the first modernity period (Ekberg, 2007: 343-345).

Ulrich Beck describes this situation as follows:

“The dangers are produced in technological processes in industry; they are defined as external costs by the economic system; they are singularized by the legal system; their losses are either ignored or seen as insignificant by political institutions.”

Tortojada, on the other hand, states that elements such as poverty, which leave them vulnerable to disaster risks, must be eliminated. Otherwise, economic, social, environmental, infrastructural or political vulnerabilities which could not be reversed may arise if the urban areas are unable to respond to suddenly developed events properly and in a timely manner.

These vulnerabilities can also be used in the sense of fragility. UNISDRR (United Nations International Strategy Office for Disaster Risk Reduction) defines fragility as:

“Situations determined by physical, economic, social, environmental and political factors that increase the vulnerability of individuals, society, wealth or the system to the effects of hazards.”

It is necessary to associate the concept of fragility that is frequently used in disaster management literature with the resilience concept. Because not meeting the requirements of urban resilience, which is the level that cities aim to achieve, where the risks are eliminated, minimized or transferred, makes cities vulnerable, in other words, open to risks.

In this context, we come across the concept of “Disaster Risk Reduction” as an international strategy.

Article 31/J of the Presidential Enactment Numbered 4 on the Organization of Related Institutions and Organizations and Other Institutions and Organizations Connected to Ministries defined Disaster Risk Reduction as follows:

“Any planned intervention to be taken with the aim of preventing, reducing or sharing possible risks according to disaster scenarios developed in a particular sector or area”.

2.2 The Evolution of Disaster Risk Reduction

After the oil crisis in the 1970s, there was a paradigm shift and the world met with globalization. The effects of this process were soon reflected in the literature. After that the concept of sustainability emerged as an umbrella concept at the "United Nations Conference on Human Settlements-Habitat I" held in Vancouver, Canada in 1976. This process became more active in the 1990s and the concept of sustainability evolved into the concept of resilience. In this context, this paradigm shift has also been seen in disaster policies. Disaster policies around the world have shifted from disaster response approach to proactive Disaster Risk Reduction efforts. Therefore, the Disaster Risk Reduction efforts have been evaluated under this umbrella.

In this part of the study, it is aimed to analyze how Disaster Risk Reduction has been included in international texts from past to present, to evaluate the future of the concept of disaster resilience in urban areas which is the main solution focus (umbrella concept) to discuss how it can be used in city and regional planning tools especially emphasizing urban transformation principles.

Disaster Risk Reduction is on the agenda of many international organizations. United Nations, Rockefeller Foundation and OECD (Organization for Economic Co-operation and Development) are among these organizations. In this framework, programme reports and declarations have been published by many organizations, especially those mentioned above.

The chronological order and basic information of these declarations are given below.

Table 2.1: The International Development of Disaster Risk Reduction

Year	International Development of Disaster Risk Reduction
1976	United Nations (UN) Conference on Human Settlements-Habitat I
1990	UN declared the years between 1990-1999 as "International Decade for Natural Disaster Reduction"
1992	United Nations (UN) Conference on Environment and Development
1994	Yokohama Strategy and Action Plan for a Safer World
1996	United Nations (UN) Conference on Human Settlements-Habitat II (Istanbul)
2000	Establishment of International Strategy for Disaster Risk Reduction (Millennium Declaration)
2003	OECD Report
2004	UNISDRR "Living with risk report"
2005	Declaration of "Hyogo Framework Action Plan" (2005-2015)
2007	Establishment of Global Platform for Disaster Risk Reduction
2009	The Incheon Declaration: "Campaign on Building Resilient Cities Addressing Urban Risk"
2010	World Disaster Risk Reduction Campaign: Making Cities Resilient:
2010	Shanghai Expo: "Better City, Better Life"
2011	The Chengdu Declaration
2012	United Nations (UN) Conference on Environment and Development Rio + 20 "The Future Declaration That We Want"
2014	Medellin Collaboration for Urban Resilience
2015	Declaration of "Sendai Framework Action Plan" (2015-2030)
2016	United Nations (UN) Conference on Human Settlements-Habitat III
2017	Resilient Cities Programme

In this part of the thesis, only the Sendai framework, which is the most current and inclusive of the above - mentioned declarations, will be detailed. At the analysis stage, the principles and criteria of this declaration will be used.

Sendai Framework Action Plan (2015 - 2030)

The Sendai Disaster Risk Reduction Framework Action Plan, which will be implemented between 2015 - 2030, was established at the Third World Conference on Reducing Disaster Risk.

The framework action plan basically aims to increase disaster resilience by reducing disaster risks. The emphasis on increasing poverty and therefore disaster risks was also repeated at the conference.

With the Sendai Risk Reduction Framework, four priorities have been put forward for action plan on a local, regional, national and global scale (UNISDRR, 2015).

These priorities are as follows:

- Understanding the disaster risk,
- Strengthening disaster risk governance,
- Investing in Disaster Risk Reduction for resilience
- Improving disaster preparedness in order to “built it better”,

Overall, the framework action plan draws attention to preparation, cooperation and capacity building in reducing risks. On the other hand, constantly searching for better and benefiting from experience stands out as another of the principles included in the Sendai Framework. In the common vision of these declarations, it is aimed to reveal healthy, safe, cost - effective cities in which human rights are fundamental values. In this context, the main principles are as follows;

- Ending that poverty,
- Sustainable urban economies,
- Integration in urban life,
- Preventing infectious diseases,
- Encouraging participation,
- Reduction of disaster risk,
- Ensuring transparency,
- Increasing urban resilience,
- Decreasing vulnerability,
- Creating Anti-Fragile communities.

Also, if these are not provided for the future with plans, cities will be vulnerable living areas with the impact of the urban population, which is expected to gradually increase and intensify before the middle of the century.

As a result, reducing risks and increasing resilience appear as the ultimate goal in the Sendai Framework, as in all similar texts.

2.3 Understanding the Resilience as an International Strategy for DRR

In the disaster management literature, as mentioned in previous sections of this thesis the general opinion is that a disaster is the output of human activities that engender fragilities. As it was cited in Adıktulu's EQ Studies in 2019, cities become more fragile to disasters as a result of high concentration of poor communes exposed to these human activities in urban areas. Moreover, as it was cited in Şenol Balaban in 2016, concentrated poor communes thus concentrated economic activities in urban areas increased the impacts of disasters.

United Nations' published data demonstrate that as of 2020, 55% of the total population of the world population live in urban areas which was %33 in 1960. Moreover, according to the demographical projections, this level will reach almost 70% in the year 2050.

In this regard, the main apprehension in these urban areas is to cope with disaster risks which only could be achieved by enhancing the level of "resilience" against hazards (Johnson, Blackburn, 2014: 29-31).

Therefore, the concept of resilience became the umbrella phenomenon in many disciplines especially where vulnerabilities and risks exist such as terrorism, financial crisis, pandemic disease, climate change, flood or especially earthquake. In this context, it is inevitable to understand the concept of resilience as an international strategy in reduction of disaster risks.

2.3.1 Defining the Concept of Resilience

Resilience is derived from the Latin words *resilio* or *resiliere*, which means the ability to adapt to change.

The concept of Resilience was first brought to agenda by an ecologist: Crawford Stanley Holling. He described the concept of resilience from an ecological perspective in his book “Resilience and Stability of Ecological Systems” as:

“The ability of environmental systems to absorb the external impacts and to reorganize itself to regain its’ full functionality”.

Furthermore, according to Holling resilience can also be defined as “the return rate to equilibrium” under a chaos environment from an engineering perspective (Holling, 1973: 1-23).

The phenomenon is later reevaluated in 2000 by Gunderson and by Scheffer in 2009 and redefined as an umbrella phenomenon to understand the endurance capacity of systems under a chaos environment (Brand, Jax, 2007).

These definitions of resilience evolved in time into a more conceptual approach as it came to the agenda of other scientific disciplines besides ecological sciences to help understanding more complex systems. That evolution in the term of resilience creates new layers to the concept. Today, resilience is used not only to declare a “return to equilibrium” but also to “bounce forward” (Alexander, 2013).

This new consideration (bouncing forward) has built different ideas to the agenda of resilience such as poverty, fragility and vulnerability mitigation by reducing risks which is defined by Nassim Nicholas Taleb in his book *The Black Swan* as Anti-Fragility. As can be seen from the figure below, there is a situation that is called the normal situation in other words pre-event situation that is turning into a disaster or chaos which is called Stage Zero. The First Stage is called the Chaos which corresponds to the first moments of the shock. The Second Stage is the stage where many emergency interventions are put into effect to reduce the damage of a disaster.

However, it cannot be determined at this stage whether the developed regulations at this stage will be permanent or temporary. In the Third Stage, daily life has returned to new normal order with a brand-new balance. Although this is defined as a return to equilibrium in the resilience concept, it is also defined as bouncing forward in the Anti-Fragility concept.

The situation, detailed above, is tabulated by Becky P. Y. Loo as follows:

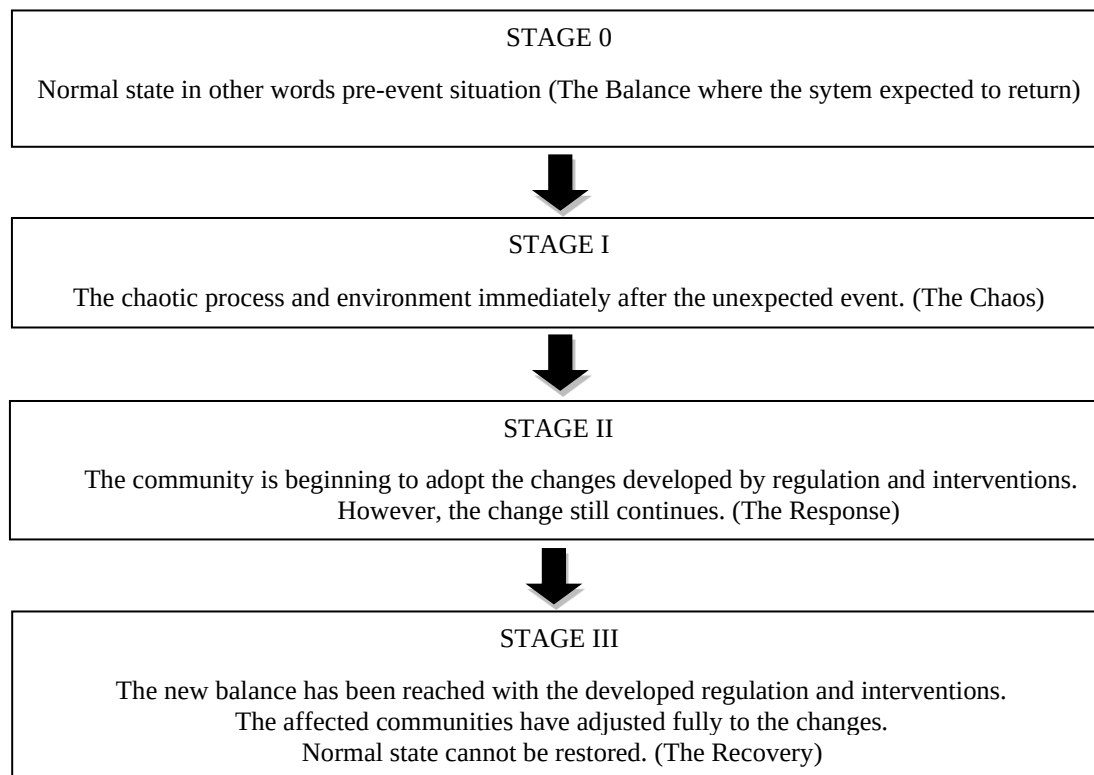


Figure 2.1: The Process of Anti – Fragility I

Indeed, sustainability and resilience complement each other, and it is not possible to achieve resilience without sustainability. The same applies to Anti-fragility as well. Anti - fragility cannot be achieved without resilience. Often these concepts are used in the late modern period (after the 1970s) without any significant differences in meaning or purpose (Marchese, Ganin, Kitsak, Keisler, Seager, Linkov, 2017).

The figure describing the phenomenon that is detailed above is given below which is compiled from Özer 2018.

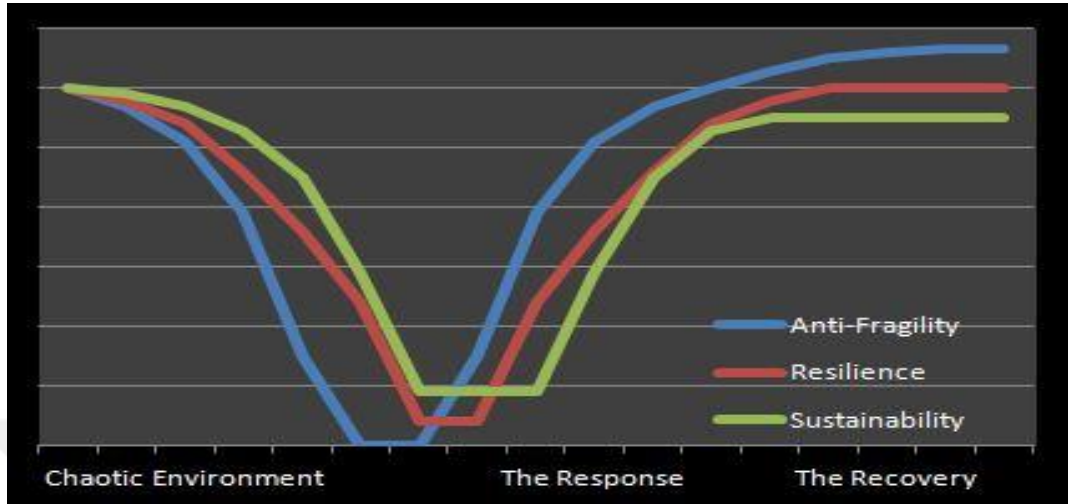


Figure 2.2: The Process of Anti – Fragility II

This situation emphasizes that these visions are not only a measure, process or objective to achieve, each of these are “a way of thinking”.

2.3.2 Urban Resilience in International Literature

The concept of resilience is also used in the city and regional planning discipline as an umbrella concept. In this context, the concept of urban resilience has been developed to be used in its tools such as urban transformation.

Urban resilience is also on the agenda of many international organizations. United Nations, Rockefeller Foundation and OECD (Organization for Economic Co-operation and Development) are among these organizations. In this framework, basis declarations on urban resilience have been published by organizations, especially those mentioned above.

The essentials in these declarations will be also used in the analysis of case studies as the necessary evaluation criterias (wellness, environment, infrastructure, economy and governance) for resilience of urban transformation in relation with urban resilience to disasters.

The most comprehensive studies about the concept of urban resilience in international literature have been conducted by United Nations International Strategy office for Disaster Risk Reduction. In this context, urban resilience definition which is made by UNISDRR can be taken as a universal term definition.

UNISDRR defines the concept of urban resilience as:

“The ability of an urban system and its community which is exposed to hazards to resist, absorb and recover from the effects of the hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions.”

The definition of urban resilience made by UNISDRR includes entire stages of disaster risk management. Disaster risk management cycle which is mentioned above is given in the below table that is developed by United Nations Office for Outer Space Affairs.



Figure 2.3: Stages of Disaster Risk Management

In this regard, UNISDRR has also set out 10 Essentials for making cities resilient. The table below contains information about these essentials.

Table 2.2: UNISDRR 10 Dimensions For Making Cities Resilient

<u>Main Dimensions</u>	<u>Objectives</u>
Organization and Coordination of Institutional and Administrative Framework ¹	○ Participation of local people and groups, ○ Creating local partnerships, ○ Awareness of the roles of all stakeholders in Disaster Risk Reduction and preparedness.
Strengthening Financial Capacity ²	○ Budget allocation to Disaster Risk Reduction and encouraging measures to invest to reduce risks to low-incomers.
Infrastructure Upgrade ³	○ Investing in critical infrastructure capable of reducing risks.
Multi-Dimensional Disaster Risk Analysis and Management ⁴	○ Preparing up-to-date data on hazards and vulnerabilities, ○ Making risk analyzes and using them as a basis in development plans and programs,
Protecting Critical Services: Health and Education ⁵	○ Ensuring the safety of schools and health services, improving their conditions if it is necessary.
Realistic, Risk Compliant Land Use Planning and Design ⁶	○ Applying realistic, risk-compliant arrangements on land use planning ○ Providing safe settlements for low-income citizens and improving illegal settlements.
Education, Training and Awareness ⁷	○ Including training programs related to DRR in schools and local communities.
Environmental Protection and Strengthening Ecosystems ⁸	○ Protecting ecosystems and natural barriers with the aim of reducing floods, storms and other dangers that maket he city fragile, ○ Adopting to climate change with Disaster
Effective Preparedness for Early Warning and Disaster Response ⁹	○ Establishing early warning system and emergency management systems in the city and region and conducting exercises
Expedite Communities That Can Recover and Rebuild Better ¹⁰	○ Putting the needs of victims at the center of reconstruction after any disaster.

Source: https://www.unisdr.org/files/26462_13.tenessentialchecklist.pdf, Date of Access: 10.04.2020.

According to UNISDRR, as can be seen from the table, being a resilient city (a city that can rebuilding better) consist of enhancing local institutional network, increasing infrastructure capacities including financial trust, analysing thresholds, ensuring the continuity of critical services (health and education) and putting social awareness about environment in the foreground. In this way, it is aimed to create cities with coping, adaptation and resistance features.

As United Nations, the 100 Resilient City Movement which has been founded under the leadership of Rockefeller Foundation has also intends to make cities more resilient. This movement does not only consider the factors that increase the fragility of the cities as just disasters but also considers poverty, rent and even corruption within the framework of resilient city.

In addition to United Nation's universal term definition, the movement has also defined another alternative definition. The 100 Resilient City Movement defines urban resilience as follows:

“The capacity of individuals, communities, institutions, businesses, and systems within a city to survive, adapt, and grow no matter what kinds of chronic stresses and acute shocks they experience.”

Basic systems of urban resilience in the Resilient City Framework are detailed with four dimensions (Health and Wellness, Economy and Community, Infrastructure and Environment, Leadership and Strategy) in the below table.

Table 2.3: Rockefeller Foundation's 4 - Dimensional Analysis for Making Cities Resilient

Main Dimensions	Health and Wellness	Economy and Community	Infrastructure and Environment	Leadership and Strategy
Explanation	Everyone who lives and works in the city has the same quality of access to everything that they need to survive and thrive.	Social and financial systems are provided to ensure that urban populations can live peacefully and act collectively.	It protects and connects urban assets that provide critical goods and services, human-created and natural systems and the continuity (flow) of information.	Processes that empower effective leadership, inclusive decision making, stakeholders and integrated planning and design.

Source: <https://www.oecd.org/cfe/regional-policy/resilient-cities.html>, Date of Access: 01.05.2020

Table 2.3: (continued)

Main Dimensions	Health and Wellness	Economy and Community	Infrastructure and Environment	Leadership and Strategy
Objectives	Meeting the basic needs of everyone, Supporting diversity of livelihood and employment, Providing public health services effectively (including emergency intervention)	Promoting communities with adaptive, integrated and strong social networks, Ensuring social stability, security, rule of law, crime prevention and justice, Encouraging economic well-being by diversifying the flow of resources, attracting investments, allocating capital and creating funds.	Reducing the vulnerability and fragility of natural and man-made assets of the city's systems, Ensuring the flow of people, information and goods by providing reliable communication and mobility with advanced technology at low and various cost, Procurement of sustainability of critical services.	Promoting leadership and effective management in the public, business or civil society, Strengthening the stakeholders which is supported by education and based on the ability of individuals and organizations to access information and make right decisions.

Source: <https://www.oecd.org/cfe/regional-policy/resilient-cities.html>, Date of Access: 01.05.2020

As can be seen from the above table, the Rockefeller Foundation has also analyzed the urban resilience in a broad framework.

OECD (Organization for Economic Cooperation and Development) is another international organization that attaches importance to the issue of urban resilience. Urban resilience phenomenon is also defined by OECD as follows:

“The city which has achieved the ability to prepare for future economic, social, environmental and political acute shocks, cope with them and then built recover in a better way.”

In this context, OECD has also detailed urban resilience with four dimensions (Economy, Governance, Society, Environment) in the below table.

Table 2.4: OECD’s 4-Dimensional Analysis for Making Cities Resilient.

Main Dimensions	Sub - Headings
Economy	○ Diversity to ensure economic growth, ○ Employment of local people, ○ Accessibility to critical education and health services.
Governance	○ Strategic and integrated management decisions which is taken by local and central political leaders, ○ Public sector with merit, ○ Transparent and open state.
Society	○ Inclusive and harmonious society, ○ Active local people (neighbourhood) network, ○ Healthy and safe urban dwellers.
Environment	○ Robust and diverse ecosystem resources, ○ Basic infrastructure that is meeting basic needs, ○ Existence of harmonized policies which is regarding land-use

Source: <https://www.oecd.org/cfe/regional-policy/resilient-cities.html>, Date of Access: 01.05.2020

As can be seen, urban resilience phenomenon is considered as an umbrella concept in international planning and design strategies in order to meet the future needs of cities and regions to become anti - fragile with mitigation efforts by reducing their vulnerabilities like disaster risks of urban areas.

Moreover, these dimensions prepared by reputable international organizations which are overlapping in most of the definitions of resilience will be used as key term in other words path finder in the spatial case study analysis.

2.3.3 Urban Resilience Assessment Framework

With the emergence of urban resilience in the literature, it has become necessary to develop a system on “*how to evaluate in which field*”.

In this context, Resilience Alliance which is an international, multi disciplinary research organization developed a system with a research study conducted in 2010 that is called “Resilience Assessment Framework”.

The framework involves all the features of the Resilience phenomenon to assess the vision on how to evaluate in which field.

Resilience Assessment Framework incapsulate 4 layers on how to evaluate and how to assess the system. These layers are as follows:

- The definition of the system,
- Understanding the functioning of the system
- Discovering interfaces in the system,
- Evaluation of governance.

Accordingly, this framework asks two questions on evaluation in which field to assess the system. These questions are as follows:

Resilience to what?

Resilience of what?

The first question is asked for categorizing the source of chronic problems, chaos, acute shocks which is causing uncertainties that a system is facing. That questions are defining “the general” type of resilience. There is also a “specified type” of resilience. The second question is asked for defining the subject of the resilience system (Resilience Alliance, 2010).

In this context, resilience system which is used in this thesis that is detailed in the following parts has been evaluated as follows:

In “general” context: it is *urban resilience to disaster*,

In “specified” context: it is *resilience of urban transformation*.

2.4 Summary of the Chapter

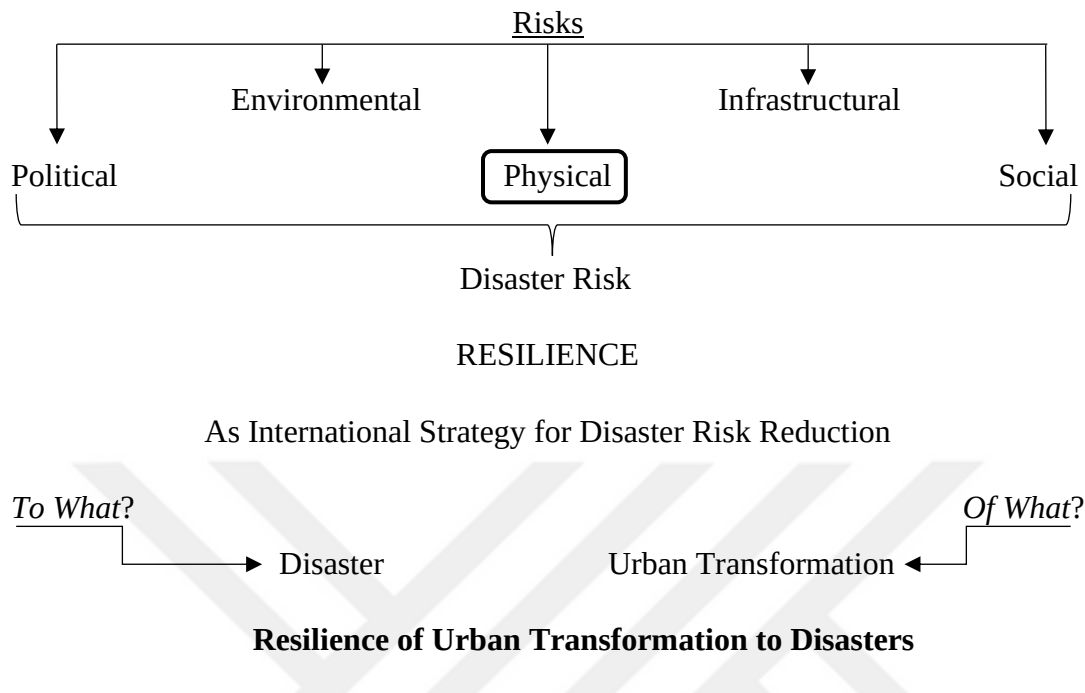
Cutter (2008) highlights interdisciplinary connectedness of dimensions in resilience to disaster. In addition to this, as mentioned above, Nassim Nicholas (2012) highlights there will be always a transformation in the systems and sometimes there will be also an uncertainty due to nature of disasters. In this context, the policies should target a diversity of fields. Most important field for responding in this diverse system is urban planning for resilience to disaster. Within the scope of this thesis it is resilience of urban transformation to disasters.

Up on that city and region planning is one of the fundamental means of managing urban areas which involves basis analysis of the current risks and synthesizing them to come up with various solutions to defined problems at changing scales with improved disaster risk management systems outspreading from local to international stakeholders from relevant diverse fields for the development patterns of the urban areas in the near future.

These mentioned risks are changing with their main effect areas. This thesis is studying the physical risks. In the context of physical risks, the focus is only governance of urban transformation.

The place of resilience in urban transformation process is diagrammed below.

Table 2.5: The Place of Resilience in Urban Transformation



Furthermore, the review of urban transformation policies and analysis of urban transformation implementations are discussed in the following chapters in terms of meeting every minor needs of urban resiliency system that is detailed in this chapter in facing with disaster risks in vulnerable urban areas. The needs in question were reorganized with the Resilience definitions of OECD, UNISDRR (Sendai Framework) and Rockefeller Foundation that are detailed above. According to that reorganization process:

The areas that have been transformed within the scope of Law Numbered as 6306 is examined in 3 categories according to the concepts (Management¹, Urbanization² and Transformation³) that refer to the 3 main chapters of this thesis. They are International View at Disaster Management as Disaster Risk¹, National View at Transformation of Urbanization as Planning Criteria² and Analysis of Case Studies as Agreement Model³.

Categorization of these areas that transformed within the scope of Law Numbered as 6306 will be evaluated also in layers in the dimension of resilience of urban transformation to disasters those are defined by Cutter (2008) as follows:

The ecological¹ resilience, social² resilience, economic³ resilience, institutional⁴ resilience and infrastructural⁵ resilience.

The layers in question were reorganized with the Resilience definitions of OECD, UNISDRR (Sendai Framework) and Rockefeller Foundation that are detailed above. From these dimensions infrastructural resilience, economical resilience and ecological resilience are used in the evaluation criteria table. Ecological/environmental resilience is used to analyse the disaster risk. Infrastructural/physical resilience is used to analyse planning criteria. Finally, economical resilience is used to analyse agreement models in the urban transformation projects implementations. However, main focus is to analyse planning criteria for the scope of the thesis research.

As a result, urban transformation implementations should produce solutions instead of creating the above-mentioned chronic problems and acute shocks. In order to reduce these problems

“Preparation and disaster risk reduction approaches are requiring assessment of disaster risk analysis and disaster risk management for developing framework action strategies.” (Şenol Balaban, 2016).

For this reason, this thesis has spatially analyzed the brand-new risks created in areas under disaster risk transformed by the law, with criteria parallel to the country's planning legislation and come up with a quantitative result.

Last but for most; this conceptual and theoretical framework in this section established to highlight the requirement for emerging policies. For that reason, the results of above-mentioned spatial analysis have been translated into discussion areas aiming to contribute to the revision of the Law Numbered 6306 through in - depth interviews with the experts detailed below chapters.

These issues will continue to be discussed as technically in the following section in a national urbanization context, or in other words, these issues will be overlapped in layers to be evaluated together with case studies in chapter five.

CHAPTER 3

A NATIONAL VIEW AT TRANSFORMATION OF URBANIZATION

“Any city is in fact divided into two. One the city of the poor, the other city of the rich. These are at war with one to another.”

Plato

Article 57 of our Constitution points to the "right to housing" in the Republic boundaries. In the article in question, "The state takes measures to meet the housing need within the framework of a planning that takes into account the characteristics and environmental conditions of the cities, and also supports mass housing enterprises." statement is included. So, the state plays a decisive role in housing policies.

On the contrary, the whole of the buildings called the urban are full of cracks, covered with plaster, carrier columns are missing, cut but not visible, the necessary maintenance has not been done in time and is placed on the wrong ground. Now there is a great quake and that shocks are pouring the plaster bit by bit (Davran, 2020).

The solution to the problem in question is obvious: Urban Transformation of the Areas under Disaster Risks. While this is the case, in this part of the study, the concept of urban transformation will be examined within the national framework in general. Also, the historical development, transformation types and legal foundations of urban transformation in Turkey will be summarized. The compositions of definition and inferences made in this chapter will be frequently used later in the analysis of case study. In other words, these constitute a technical basis. The international theoretical basis was explained in the previous chapter.

3.1 Historical Development of Urbanization and Subsequent Transformation

It took a long time for classical human communities to transition from an agricultural society, where villages are predominantly, to an urban society with urbanization brought by industrialization. For example, as mentioned below, Britain, where the industrial revolution first took place, has experienced this process over a fairly long period of time, ranging from 200 - 300 years to change in different places. Although there have been significant changes in this process, these changes have been digested by society because they have occurred slowly. Turkey has experienced this process in a very short period of time, ranging from 20 to 30 years to change in different places. This was a consciously designed process. As such, the input prices of agricultural producers the input prices of agricultural producers were kept quite high, co-operationalization was prevented, and village institutes (institutional structures that would allow agricultural society [peasants] to develop in an egalitarian way in every sense) were closed. Output prices were controlled by large, monopolistic, wholesaler traders. As a result, impoverishment and provincial development in the countryside led to urbanization (migration to the city). In this process, cities grew uncontrollably, incredibly, without a real bourgeois culture. The economic consequences of this process were seen as economic inequality, and the social consequences were seen as crises. On the other hand, the structure of society has changed with the cultural consequences of this process. This change has spawned a society that tends to be obedient and polarized, which can identify themselves as neither urban nor peasant (Milor, 2020).

While this is the case, accordingly, Ozgur Ozkan and Julide Alp conduct a research, in 2019, it was concluded that also the perception of urban transformation in Turkey is quite different from the practices in the West World. It is seen that industrial revolution and war lies at the basis of common practices in the west. Therefore, due to both industrial activities and war damages, urban transformation practices in the west world date back to earlier years than in our country as mentioned above. With this aspect, urban transformation processes differ structurally with our country.

In this section of the study, “Historical Development of Urban Transformation” is described in separate two parts, one is in the West World and the other one is in Turkey.

3.1.1 Historical Development in the West World

Urban transformation processes in the west world were examined by Peter Roberts in a study in 2000 and divided into five different periods as follows:

Industrialization and Construction of the Modern Cities, Post - War Urban Reconstruction I – II, Industrial Decentralization, Post - Neoliberalism Urban Restructure and Post - Globalization Urban Restructure.

Industrialization and Construction of the Modern Cities

Intensive migration from rural areas to the urban areas in the west occurred in the 1800's. With the influence of the popularization of Industrial Revolution various settlement problems have caused health problems and subsequent socio-economic problems. These problems have led to serious depressions in cities over time. Therefore, in that period of time, modern centers were construct in almost all metropolitan areas of Europe with extensive urban plans (Kocamemi, 2006).

Post – War Urban Reconstruction I - II

The urban collapse that emerged after the wars in Western cities which is the second wave of urban transformation in the west, led governments to seek solutions in this matter. Thus, the importance of urban plans in these cities has increased and conscious studies have been made in the field of urban transformation in the United States of America (USA), Germany, United Kingdom (UK) and France. USA has created urban transformation implementations, in order to renew the city of "New Heaven", Germany, in order to erase the traces of the World War I and the Hitler, UK, in order to transform the workers' cities formed by the effect of the Great British Industrial Revolution into livable cities and France, in order to prevent and control the rebellions in the country (Koçak and Tolanlar, 2008: 400).

In the 1950s, which was recalled as the "Bulldozer Period", while trying to heal the wounds of war, reconstruction activities that were not caused by either the war or industrialization were initiated for the first time with the destruction of poverty nests called "slums", which were built to be house for workers. These actions were followed with a framework policy of destroying an entire area and reconstructing a brand-new city with everything possible (Carmon, 1999: 145-147).

Industrial Decentralization

In this period between 1960 and 1980 rehabilitation and revitalization practices were widely used due to the high cost of completely demolishing an area and rebuilding it by the public resources (Roberts, Sykes, 2000).

Post - Neoliberalism Urban Restructure

After 1980, due to the problems experienced in above mentioned large housing areas, new urban transformation issues had emerged and new urban transformation policies (renewal and redevelopment) were produced. It has been a period in which it was dealt with both spatially and socio - economically (Sert, 2018).

Until the 1970s, the contents, finances and organizations of urban transformation implementations which was mainly supported by public resources were changed by the worldwide economic crisis caused by the oil crisis and the subsequent adoption of neoliberal economic policies. Since the 1980s, state, civil society and private sector partnerships have been dominant in urban transformation implementations in Europe and the USA (Doğaner, 2017).

The first reason for this is that, depending on the development of the neoliberal economic system, in many countries, public resources are considerably weakened with the privatizations, and thus, the social state approach is abandoned (Doğaner, 2017).

Although it was assumed that the economic development targeted by these real estate-oriented, public-private sector joint urban transformation policies followed after 1980's gradually reflected on all segments of the society, the result was not as expected at all (Yasin, Şahin, 2013).

Post – Globalization Urban Restructure

Since 1990, the urban transformation method which is mostly used is urban redevelopment. The main policies adopted in urban transformation practices through this era can be listed as follows (Seydioğulları, 2016: 52);

- Ensuring the participation of voluntary organizations and different segments of the effected society, as well as the public and private sectors,
- Using local methods,
- Handling in an integrated manner with its sociocultural and environmental dimensions,
- Revitalizing urban centers,
- Limiting urban expansion in order to implement sustainable urban transportation policies that will ensure efficient use of resources,
- Development of multifunctional urban areas,
- Protection of natural and historical heritage.

Table 3.1: Historical Development of Urban Transformation in the West World

<u>Years</u>	<u>Reason of Intervention Change</u>	<u>Main Forms of Urban Transformation</u>
1850 – 1910s	Industrial Revolution	Construction
1910 – 1940s	World War I	Reconstruction
1940 – 1960s	World War II	
1960 – 1970s	Decentralization of the Industry	Revitalization, Rehabilitation
1970 – 1980s	Neoliberalization	Renewal
1980 – 1990s		Redevelopment, Conservation
1990 – 2000s	Globalization	
2000 - Today		

Source: It is compiled from Roberts and Sykes (2000), Demirkıran (2008) and Seydioğulları (2016)

3.1.2 Historical Development in Turkey

In this part of the study, the historical urban transformation development of Turkey will be examined while the political events, legislative changes and key disasters that guide this development will be examined together.

Every decision taken about urbanization in this process from the first half of the nineteenth century to the present day is instant solutions and contains an interest in either rent or political, sometimes both. The result of these decisions has determined the dynamics of urban transformation in Turkey.

This process was examined by Tarık Sengul in 2001 in 4 periods. "Urbanization of the Capital", the last of the 4 periods in question, was then divided into 2 separate periods as before and after 2002 by Osman Balaban in 2008.

These political events, legislative changes and key disasters that determine the course of urbanization and subsequent urban transformation have been tabulated in detail by Meltem Şenol Balaban (2019) and the conclusions made in this part of the study are summarized through this table.

In addition, the property relation in Turkey and the general structure of urban transformation used in Disaster Risky Areas are tabulated by the author in this section which is compiled from the literature review detailed below. The inferences from these tables formed one of the foundations of the case analysis of this thesis and also guided the selection of the field.

Urbanization Background (1839 – 1922)

The first urban transformation experience in our country, which took place during the formation of the Republic with the effect of French Revolution, involves the transition of the Ottoman Empire from the sultan - centered land ownership, where every property actually belongs to God, structure to personal ownership. This process that created “Urbanization Background” of the Republic was started with “Tanzimat Fermanı” in 1839 and subsequently continued with “Ebniye Nizamnamesi” in 1848 and other reforms in İstanbul (Şengül, 2001: 106-110).

In substance, it means that this geography has only 180 years of experience in private property concept which destroyed many times in its early days until the proclamation of the republic. For this reason, an effort to understand the post - republic period must necessitates taking this period into consideration as well (Şengül, 2001: 106-110).

Urbanization of the Republic (1923-1949)

After 619 years of the Ottoman Empire, the urbanization process in Turkey has begun to change since the Republic which was the first and most important reform of social life. Cities that had just came out of the war were subjected to reforms to keep up with the modern city and modern society structure from the "Islamic city" structure. Therefore, the main factor affecting urbanization activities in this period, unlike other periods, is not caused by changes in agricultural or industrial activities, but by social changes. This process called as “Urbanization of the Republic” by Şengül in 2001.

As a result of the ongoing reforms in the years sequent to proclamation of the republic, changes had begun to take place in Turkey. At the beginning of this period, in 1924, 8 out of every 10 people was living in rural settlements. During this period, peasant and urban people were two separate realms distant from each other both in terms of economic and socio - cultural structures. However, this situation has changed and completely reversed in the process to this day. On the other hand, there was no intensive migration in Turkey, which will leave to a rapid urbanization movement from the foundation of the Republic until 1950's. The only exception for that situation was Ankara, which contains five of the eight case study areas. After Ankara was announced as the capital of the new regime, it began to grow the capital of the new regime and receive migration. In this regard, new laws and practices throughout the country related to urban planning and real estate have been implemented primarily within the framework of Ankara. In accordance with this situation, the “Ebniye law” dating from the Ottoman period was abolished and the work began with the establishment of Ankara municipality with the “Ankara Sehremaneti Law” numbered 417 in February 1924 (Şenyapılı, 2004: 4).

By referring to the first three articles of the Ankara Municipality Law, it has been accepted that the same articles, duties and powers of Istanbul Sehremaneti, the capital of the Ottoman Empire, are valid. This detail mentioned above is the most important indicator of the urgency of the planning need in Ankara. In this context, Ankara City Planning Directorate was established in 1928. The reason for the establishment of the "Ankara City Planning Directorate" is explained in the Assembly Budget Report as follows:

"The reconstruction of the capital of the republic is not a matter of a city municipality but a matter of the state directly".

After these developments sourced from the migration "Municipal Building and Roads Law" enacted in 1933, municipalities through out Turkey were tasked with preparing city plans taking into account the population change over fifty years until 1980's. In this context, the "Ankara City Development Plan" prepared by Hermann Jansen, which received the approval of the Grand National Assembly of Turkey, entered into practice during the World Economic Depression of 1929. In 1939, due to the distortion in urban planning process caused by the severe conditions of World War II, this activity was stopped (Tankut, 1993: 54-72).

Gönül Tankut also refer Alexandre's article in the Journal "Hakimiyet-i Milliye" dated 29.03.1933 in her above cited work "The Planning of a Capital City". According to this;

"Urbanism has come to Turkey with the planned development of Ankara. Every initiative in the plan of Ankara is an invention. If a success is achieved, the basic principles of the development of Anatolia will also be determined."

After the earthquake migration between 1939 - 1945 detailed in the table below, that started with Erzincan Earthquake in 1939 and caused the death of many citizens and the collapse of many buildings, "Law on Measures to be Taken Before and After Earthquakes" was enacted in 1945.

On the other hand, the Bank of Provinces, which will provide loans to support the implementation of plans and programs on the way to the establishment of development of cities and villages, was established in 1945. Since its establishment, the Bank of Provinces has been one of the most important institutions supporting urbanization.

35 Years after the proclamation of the Republic, immigration to Ankara started to intensify with the effect of the below mentioned Marshall Aids. As a result, squatter areas started over time as a solution to the housing depression in Ankara. Upon these squatter areas, which is lacking infrastructure and planning, it started to become a major problem for the first time in 1948 and "The Law on Allocation Authority of Ankara Municipality to Those Who Will Settle a Part of the State Lands, Without Being Subject to the Law Numbered 2290 Under Certain Conditions" was enacted. With this law, the deeds of treasury and municipality lands in question regardless of wheather the ones within the municipality boundary or the ones with development plan to settle or not, were transferred to non - residents, immigrants and cooperatives in order to meet housing needs of the lower and middle class citizens who have insufficient purchasing power (Demirkıran, 2008).

Urbanization of Rural Labour (1950 - 1979)

After the Second World War, in order to prevent the occurrence of such an event that would shook the Western world and capitalism as the 1929 world economic depression, Western European countries, especially the United States of America, and large companies put into effect policies to expand the network of trade routes to transform the world into a great market.

Therefore, radical economic and social changes were experienced all over the world. These policies also marked a new phase in the Turkey's urbanization experience and Şengül, (2001) calls this period "Urbanization of Rural Labour".

According to study of abolished State Institute of Statistics in 1973 called "50 Years of Social and Economic Development in Turkey", after these dates, highways gained great importance in countries that were in the western alliance.

Turkey also began to built up highways rapidly supported by the long - term loans. In addition, highways also increased the contact of villagers working in construction with the city. After 1950's highways in Turkey reached 47.080 km. which was 18.335 km in 1924.

At the same time, the modern agricultural machineries donated within the assistance of the United States to its underdeveloped and developing allies have had important consequences for Turkey's economic, social and cultural structure. The number of agricultural tools that have been used in Anatolia for thousands of years has decreased day by day. This situation has considerably reduced the number of workers needed in agriculture and created many unemployed citizens. Most of these unemployed people migrated to the city and had to work in many unqualified jobs, especially in the construction sector.

Furthermore, vital developments were made in the field of public health after the Republic, the most used protective methods are these:

- Making health - related laws,
- Establishment of the sanitation institution,
- Introduction of closed pipe systems,
- Effective fight against major diseases such as malaria, tuberculosis, syphilis and rabies using drugs and vaccines and
- Opening maternity and children's hospitals and nursing homes.

As a result, there was a noticeable reduction in death rates.

Therebeside, the reproductive age of the Republic generation and discharge of young people from armed forces increased the number of marriages and subsequent births which created a population explosion.

The migration that continued from the countryside to the cities did not only remain with Ankara in the 1950's and became a reality of the whole country. This reality had economic, social and cultural reflections. These reflections showed themselves primarily in the residential areas as housing depression and subsequent slums settlement (Sağlam, 2016: 257-275).

Consequently, the Law Numbered 6188 on “Encouraging Building Construction and Unauthorized Buildings” was enacted in 1953 by expanding the content and scope of Law Numbered 5218 enacted in Ankara in 1948. This law authorized municipalities to produce cheap and simple dwellings in order to meet the housing needs. In 1957 the first construction development law of the republic was enacted. It was the law on “Construction Development Law Numbered 6785”. The law on “Construction Development Law Numbered 6785” was the turning point in the development of urbanization and subsequent urban transformation in Turkey. In the legal development process of urban transformation applications, it had been only possible to bring public services to slums in 1963 with the Law Numbered 327. With the 18th article of this law, it is envisaged to provide urban services once to buildings without permission for use. In 1965, the Flat Ownership Law Numbered 634 was enacted, which allows to add floors to be built on a real estate belonging to the same person or different people. Which was also the turning point in the development of urbanization and urban transformation in Turkey. With this law, it aims to transform the slum areas that develop horizontally into vertical in a way to meet the housing needs of increasing urban population which settled in disaster risky areas. The population who migrated from villages to cities started to build single - storey residences without main infrastructure on risky lands that did not belong to them. These dwellings called "gecekondu" among the people had taken place in the official literature and found their expression in the relevant law in 1966. The dual development structure of Turkish cities (the slums and regular buildings in flat ownership regime) was legitimized with the “Gecekondu Law Numbered 775” which was enacted in 1966 a year after from the Law Numbered 634 (Sağlam, 2016: 257-275).

According to the 2nd article of the Law Numbered 775 of 1966, the term Gecekondu is defined as follows:

"Unauthorized buildings made on lands that do not belong to them either without the consent of the owner or without being bounded up with the legislation "

According to 1950 census data, there were almost 50,000 squatters in Turkey, while the population sitting in these squatters was around 250,000 people and squatters in Ankara was covering about 55% of these throughout Turkey. As expected, during this process, the construction of squatter areas increased quite rapidly.

According to Ministry of Internal Affairs data for this period, the number of slums in Ankara in 1959 increased to 45.850 while the the population living in slums was 222.275. The same situation occurred in Istanbul even more dramatically. The number of squatters in Istanbul reached 61.400 in 1959 and 120.000 in 1963 which was 8.239 in 1950.

The immigrants from the countryside to the urban areas built these gecekondu slums (squatter areas) detailed above in areas closest to the central business districts and areas that were not opened to settlement because of the topographical thresholds such as a certain amount of slope, landslide and flood plains where they totally vulnerable to earthquakes. This situation has been accepted as the first turning point that creates disaster risk in main urban areas of Turkish cities. From another point of view, these settlements were the very first examples of urban disaster risk caused by the reflection of social poverty on the space.

This movement, which started with the immigrants who were making housing for themselves on the state land, had also been a matter of trade in time and some business people with 20 - 25 slums had also emerged. On the other hand, this was the first example of settlements which was built up for the purpose of rent that creating a disaster risk (Tümertekin, 1973).

With the gecekondu law, the regions called "Gecekondu Discharge Zones" and "Gecekondu Prevention Zones" were determined. With these zones it was tried to provide healthy regular housing in the flat ownership regime at the determined areas instead of orientation of people to the construction of slums in disaster risky areas. The state also provides some financial and technical support to those who want to build housing such as allocation of land and construction assistance to achieve this aim until 1980s' (Şenyapılı, 1973).

On the brink of the global oil crisis, it began to be produced cars in Turkey after 1968 with the establishment of TOFAŞ factory. Afterwards the car ownership became widespread in cities across the country. Also, private and public institutions have started to transport their employees with service cars. This practice has become quite common. In theory, these developments were the developments that could allow cities to grow by leaving empty spaces between them. That was, the birth of a metropolitan ecumenopolis structure which is one of the fundamental determinants of urbanization and subsequent urban transformation process in Turkish cities.

Urbanization of Capital

The economic programme announced on January 24, 1980 marked an important turning point for the neoliberalization of the Turkish economy, and also marked a new phase in the Turkey's urbanization and transformation experience Şengül, 2001 and Balaban, 2008 calls this period “Urbanization of the Capital”. Balaban draws attention in his article in 2008 to the contribution of state interventions in the legal and institutional dimensions of urban transformation in Turkey to the production of the urban development.

According to the mentioned articles there was three main periods from the 1980s to 2001.

- Amnesties
- Mass housing implementations
- Decentralization of the development authority

Urban transformation in Turkey is taking place more intensively in the gecekondu slums. For this reason, the first of the subperiods “the amnesties” enacted in 1983, 1984, 1986 and 1987 for the rehabilitation and redevelopment of illegal squatters.

Among these amnesties, Law Numbered 2981 on “some actions to be applied to structures contrary to development and slums legislation and law on amending an article of the Development Law Numbered 6785” enacted in 1984 was the most comprehensive.

This law had given district municipalities the authority to prepare “Rehabilitation Development Plans” that not only legalised the squatters, but also provided owners to transform their structures with further development rights in the flat ownership regime. This phenomenon brought a dynamism to the housing construction market in Turkish metropolitan cities. In that context, The Mass Housing Administration (TOKI) and Mass Housing Fund were founded in 1984. Hereby, the other one of the subperiods is “the mass housing implementations”. In this period of time TOKI and Mass Housing Fund became important instruments in the financing of the housing market in the Republic by supporting housing production for middle and low - income groups. The last significant change in the mid - 1980’s occurred in the legal and institutional aspects of the urban transformation process. The second Urban Development Law of the Republic Numbered 3194, enacted in 1985, decentralised the authority for the preparation and implementation of urban development plans to the local municipalities. The new development law increased the number of urban planning and construction activities, while contributing to the increase in unnecessary housing stock in Turkey after the 1980s’ (Balaban, 2008).

Melih Ersoy detailed the consequences of this situation in his article titled "Development Plan Changes and Judicial Control" published in 1997. Accordingly, article 8 of the Development Law Numbered 3194 stipulates that the development plans will be made by the city planners or will be made by the relevant municipalities and approved by the relevant Municipal’s Commissions and Councils. After the development plans are finalized, they become legally binding and obligatory documents to be followed by everyone. In this case, it can be argued that the static plan understanding comes to the fore. Especially, the weight of technocrats in the plan preparation phase causes the influence of municipalities on decisions to be limited. Technocrats, on the other hand, do not know the city they are planning adequately. Therefore, the economical possibilities and limitations in the city and especially the balance of local power in the socio - cultural structure cannot find the opportunity to be reflected in the plan sufficiently. This situation changes after the plan is approved and implemented. The city planner and Bank of Provinces who prepared the plan are often excluded from the process (Ersoy, 1997:2).

This time, local powers are gaining influence. Afterwards the effectiveness of local powers requests the plan to be revised in accordance with individual interests. This also affects the application. At this stage, administrations are heavily faced with requests for plan changes (Ersoy, 1997:2).

Since the plan changes were made and approved by the relevant municipalities, we do not have statistical data on how many plan changes have been made on the scale of Turkey according to the settlements over the years since 1985. The lack of extensive research on this issue also makes it difficult to clearly understand the extent of the problem. On the other hand, according to the Law Numbered 6785, since the development plan changes were approved by the central administration, it can be said that we have a very satisfactory database for this period of time. Using this data, a thesis study conducted by Tümer Günay in 1979. According to this thesis it is stated that a total of 20787 plan changes were made throughout Turkey between 1965 and 1978. Accordingly, it is understood that during the period studied, there were an average of 1.2 plan changes per year per settlement. However, when the same database is examined according to settlement sizes, a different picture is encountered; the average number of plan changes made per year in 3 metropolitan cities with a population of more than 500,000 is up to 162. This number is logarithmically increased after 1985. This is because bureaucratic procedures had been greatly reduced and facilitated by giving local governments the authority to approve the plan and plan changes which was excluding the central government from the process. Therefore, with these regulations, the number of plan changes increased significantly. For example, approximately 140 plan changes requests were made to the development plan made in 1988 by Yalova Municipality, which was one of the most affected settlements by the 1999 East Marmara Earthquakes. These plan changes cover a very important part of the whole plan. Similarly, this situation was experienced in Istanbul, which is the next stop where a major earthquake is expected. In Istanbul, immediately after the plan approval, 230 plan changes proposals were made to Bakırköy Municipality during only one assembly period. (Akyol,1995)

According to another study conducted by Ulusoy in 1999 this situation is even worse.

Since 1985, when the Development Law numbered 3194 entered into force, plan changes constitute %69 of (802 out of 1152) plans in different scales approved by the Ankara Metropolitan Municipality between 1986 - 1998.

These examples show that, after the enactment of the law numbered 3194, there has been an increase in the plan changes, incomparable with the previous period.

Concordantly, studies have reached very similar conclusions about the reasons for the plan changes since that period of time. Tümer Günay also states in his study mentioned above that % 27.4 of the plan changes were made with the request of the green area to be converted into housing which is one of the major reasons of the disaster risk in urban areas. According to other findings of his study, plan changes in public uses cover % 40.2 of all plan changes.

According to the conclusion of Ersoy from his study in 1997; when it is added to the requests for exclusion from green area and public uses, height increase, change in building layout, change of the road route and road extensions that indirectly cause floor increases, it can be argued that most of the plan change requests cause an increase in density in the city and significantly change the distribution of capitalist urban rent to direct it those who request the change from relevant municipality.

Balaban (2008) refers to post 2002 as another significant period in the urbanization of capital, when urbanization increased rapidly. For this period, Balaban lists five major regulations implemented throughout the whole era.

- The sale of public properties,
- Empowerment of (TOKİ) and mass housing construction companies,
- Promotion of tourism investments,
- Profit - oriented investments and
- Urban regeneration.

Among these regulations, urban regeneration eliminates obstacles related to the physical renewal of decayed or illegally constructed areas by profit - oriented investments in order to create urban rent with the help of government promoted construction companies.

These regulations all facilitate capital accumulation in the urban space, while the creative but destructive character of capitalism on urban space is encountered especially in the city center as David Harvey indicate, where the rent gap seems to be large. The sale of public properties is another major component in this trend, with mass housing. In this manner schools, hospitals, public offices even terminals in the city centre being transformed to take advantage of more profitable land uses. The empowered large construction companies and institutions like TOKI affiliates Emlak Konut, Ziraat, Vakıf and Halk GYO promoted by the government emerged as the main actor of that urban regeneration. On these grounds it would not be wrong to assert that is the “new urban” policy. In other words, unevenly developing post modern macroforms are the new reality in Turkish urban transformation in the form of residences and multi - storey mass housing. (Balaban, 2008)

According to Çalışkan (2015) post modernism is a way followed in the creation of a new art work by bringing together the characteristics of different art movements of different periods.

In this sense, the cities in this period of time displays post - modern features as a place where people of different beliefs and lifestyles live all together.

Congregation, ghettoization or the desire of different ethnic and cultural groups to come together and create an environment would be visualized the city as a whole that composed of parts. Thus, it directs the planners to project developments while spoiling the silhouette of the city.

To sum up, from the Ottoman Empire to the present day of Republic of Turkey, urbanization and sequent urban transformation has always been designed for the sake of either political interests or rent. This situation can be followed by laws enacted in line with political decisions taken before almost every important election and after every disaster or sociocultural revolution. This historical development has been tabulated by Şenol Balaban in 2019. The table in question is given in detail below.

Table 3.2: Chronology of Elections, Disasters and Laws on Amnesties, Squatters, Flat Ownership Regime and Urban Transformation processes (Prepared by Senol Balaban in 2019 based on TMMOB-SPO 2002, YSK 2018, Official Gazette 2018)

	<u>Year</u>	<u>Official Document No</u>	<u>Title of Document, Election or Disaster</u>	<u>Explanation</u>
<u>Urbanization Background</u>	1839	-	“Tanzimat fermarı”	-
	1848	-	“Ebniye nizamnamesi”	-
	1854	-	“Sehremanet”	-
	1894	-	Great Istanbul earthquake	-
	1923	-	Proclamation of the Republic	-
<u>Urbanization of the Republic</u>	1924	417	Sehremaneti	Establishment of Ankara City Municipality
	1928	-	Capital City Planning Directorate	Establishment of Ankara City Planning Directorate
	1933	2290	Municipal building and roads	Tasks municipalities wity preparing city plans
	1939	-	Erzincan earthquake	-
	1943	-	Ladik earthquake	-
	1945	4623	Measures to be taken before and after an eq	Enacted after earthquake migration in North Anatolian Fault Line
	1945	-	Bank of Provinces	Establishment of Bank of Provinces
	1946	-	General and local elections	First multi-party election
	1948	5218	Allocation of municipality and government lanf for the housing	For only capital city: Ankara
	1948	5228	The Encouragement of construction	For whole Turkey

Table 3.2: (continued)

<u>Urbanization</u> <u>of the</u> <u>Republic</u>	1949	5431	Demolishing unauthorized constructions and amendment of some articles of the Law 2290	It covered all illegal settlements on public land in whole country by legalizing them and enabling the municipalities to provide cheap land.
<u>Urbanization</u> <u>of the</u> <u>Rural Power</u>	1950	-	General and local elections	First elections after the Marshall Aids that change government for the first time in Republic history.
	1953	6188	The encouragement of construction and unauthorized buildings	It legalized existing illegal settlements and prohibited new developments under the threat of penalties and demolitions of housing.
	1954	-	General elections	-
	1955	-	Local elections	-
	1957	6785	Development Plan	First planning law of the Republic
	1957		General elections	
	1959	7367	Lands to be transferred from the treasury to the municipalities	The lands belonging to the treasury would be transferred to the municipalities in case of a need
	1961	-	General elections	First elections after the 1960 military coup and constitutional amendment
	1963	327	Addition to the construction development	It legalized illegal constructions and enabled them to have access to municipal services
	1965	634	Flat Ownership	It allows to add floors to be built on a real estate belonging to the same person or different people
	1965	-	General elections	-

Table 3.2: (continued)

<u>Urbanization of the Rural Power</u>	1966	775	Gecekondü (Squatter)	First legal document to use the term Gecekondü. It legalized the existing illegal settlements and required public institutions whose land was squatted to transfer these areas to the municipalities. It also provided a fund for the provision of land for cheap housing.
	1968	-	Local elections	-
	1969	-	General elections	First elections after 1968 student movements
	1969	1164	Land Production	Buying and selling lands to prevent excessive price increases; providing lands for housing, industry, education, health, tourism investments and public facilities.
	1973	-	General elections 2 months after local elections	First elections after the 1971 memorandum
	1976	1990	A Revision to squatter's law	It covered all illegal developments built until the year 1976
	1977	-	General and local elections	First elections after the Cyprus operation
<u>Urbanization of the Capital</u>	1983	2805	Amnesty on illegal construction producers	It covered all types of illegal settlements either on public or privately owned land, and illegal constructions in the regular parts of urban areas
	1983	-	General elections	First elections after the 1980 military coup, constitutional amendment and January 24 stability decisions

Table 3.2: (continued)

<u>Urbanization of the Capital</u>	1984	2981	The Amnesty	It defined new institutions, documents and regulations related to amnesty procedure established in law 2805. The size of allocated land for each squatter owner was limited to 400 m ²
	1984	-	Local elections	-
	1984	2985	Mass Housing	Establishment of TOKI
	1985	3194	Development Plan	-
	1986	3260	Amendments for accelerating the implementation of the amnesty	Time limit of the amnesty was again extended until the year 1985. It also brought the redevelopment of former squatter settlements like building height 12.50 meter at maximum
	1987	3366	Amendments on the law 2981	-
	1987	-	General elections	-
	1988	3414	Amendments on the law 775	-
	1989	-	Local elections	-
	1989	2981	Amendments on the law 2981	-
	1991	-	General elections	-
	1992	-	Erzincan Earthquake	-
	1994	-	Local elections	-
	1995	-	General elections	-
	1999	-	General and local elections	-
	1999	-	East Marmara earthquake	-

Table 3.2: (continued)

Urbanization of the Capital	2002	-	General elections	-
	2004	-	Local elections	-
	2004	5104	North Ankara entrance urban transformation project	-
	2007	-	General elections	-
	2008	5784	Electrical market law	Electrical infrastructure for illegal buildings installed temporarily
	2009	-	Local elections	-
	2011	-	General elections	-
	2011	-	Van earthquake	-
	2012	6306	Urban transformation of areas under disaster risk	It eliminates obstacles to transform urban areas under the disaster risk
	2014	-	Local elections	-
	2015	-	General elections	-
	2018	-	-	Postponing the decisions for abolishing the law 2981 another three years after 2015
	2018	-	General election and election for the President of Turkey	The first elections after 2015 military coup attempt and changes in legislative and executive systems
	2018	-	Amnesty: Development peace	It legalized all existing illegal settlements for money
	2019	-	Istanbul Earthquakes	-
	2020	-	Corona virus 19 pandemic and Elazığ and İzmir earthquakes	-
	2021	-	Wild Fires and Floods	-

In the table, reds represent catastrophic disasters, oranges represent urban amnesties, yellows represent local and general elections, greens represent milestones and finally cream whites represents legislative changes.

As seen from the table, laws on amnesties, squatters, flat ownership and mass housing or in short urban transformation have not prevented the generation of neither illegal nor disaster risky settlements.

Accordingly, Şenol Balaban's article in 2019 on which the table is based on, they have instead encouraged the urban citizens who had built illegally on such disaster risky lands to construct new ones with an expectation of upcoming legal arrangements that will eventually have authorized permits through the new laws either before every election or after each disaster. Even the recent regulations in 2018 before the general election and election for the President of Turkey related with the illegal settlements prove that similar process is still ongoing.

With respect to the inferences from the above, it can be summarized that 5 different types of housing structure developed in urban areas in Turkey with the influence of political decisions and subsequent legal changes.

It should not be overlooked that the urbanization of Turkey had been accelerated by the formation of a class of property first spontaneously in the market as gecekondu squatters and then the acquisition of legal status of that class by the relevant state authority (Balamir, 1975).

Generally, such legalizations especially the ones for “gecekondu” slums which are the second type of property relation in Turkey that developed after the historical texture of the Republic, do not meeting either the minimum standards of building resistance to seismicity or development plan decisions.

On the other hand, it is claimed that the third type of property relations which dominated the production of regular housing in Turkey's metropolitan cities since the 1960s is flat ownership regime. This process is conceptualized as a model of cooperation between landowners, builders and house buyers to facilitate the construction and share of multi-unit residential blocks.

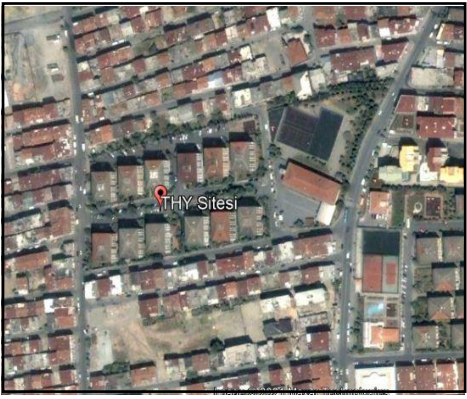
Since it was embraced broadly, its substantial contribution to the physical transformation of cities is described as unprecedented. Throughout the country, the rapid expansion of such tenure system that involved large number of households has also been politically recognized. It was an innovative way of housing at that time. Eventually, with the enactment of Flat Ownership Law in 1965, its secured tenure rights and the freehold tenure system in independent parts of buildings became a formal way of house ownership in Turkey as flat ownership regime (Balamir, 1996).

With the neoliberalized economic system in 1980s, fourth type of property relation had begun to dominate housing production in Turkey. Eventually, with the enactment of Mass Housing Law in 1984, it became another formal way of house ownership in Turkey.

Finally, with the globalization experienced all over the world that accelerated in Turkey after 2002, profit - oriented construction that produce luxury villas, residences, home offices and malls create the fifth type of property relation in Turkey. It can be said that this process has been accelerated with the enactment of the Law Numbered 6306.

The 5 property relations in question and its historical development is tabulated below.

Table 3.3: Property Relations in Turkey

Dominated	Historical Settlements	Squatter Slums	Flat Ownship Regime	Mass Housing	Profit Oriented Implementations
Period	Urbanization Background 1839 – 1923	Urbanization of Republic 1923 - 1950	Urbanization of the Rural Power 1950 - 1980	Urbanization of the Capital Part I 1980 - 2002	Urbanization of the Capital Part II 2002 - Today
Official Document	Law Numbered 2863	Law Numbered 775	Law Numbered 634	Law Numbered 2985	Law Numbered 6306*
Texture					
Texture Place	Elazığ, Sürsürü	Ankara, Gülseren	Ankara, Ragıp Tüzün	İstanbul, Bağcılar	İstanbul, Fikir Tepe

**Subject of this thesis*

This table is compiled from the literature review detailed above chapter.



3.2 General Structure of Urban Transformation Process in Turkey

According to the definition of the Turkish Language Association, transformation is “changing the shape or form without losing its content and purpose”. In other words, not alienating the space from its own social culture, contrary to what is generally done in most of the urban transformation implementations.

On the other hand, according to technical definition made by Işıkkaya in 2008 in a general framework Urban Transformation is defined as follows:

“Reforming and reviving the urban tissue that has become obsolete, worn out, changed hands in some cases or abandoned over time for different reasons, by taking into account the socioeconomic and physical conditions of the day, for the local people.”

Urban transformation implementations generally include the following areas with the general goal of “creating qualified and characteristic urban spaces that are safe, healthy and suitable for spatial living standards” (Polat ve Dostoğlu, 2007);

- Transformation of illegally built areas,
- Transformation of residential or other usage areas located in objectionable areas that will be directly affected by disasters especially an earthquake, and lastly;
- Transformation of areas that contain objectionable usage or condition in the city.

The development of aforementioned urbanization and subsequent urban transformation processes has also affected the main structure of urban transformation in Turkey. Therefore, 3 types of urban transformation structure have been created.

- Parcel – based transformation
- Block – based transformation
- Areal transformation

Although the parcel - based transformation is different from other two transformation structures, as mentioned above the vast majority of our cities have been transformed with this structure. This structure has been widely preferred because it provides rapid transformation, cares about the budget of the local people and preserves the urban memory. On the other hand, this structure does not allow intervention in the urban equipment or in other words urban infrastructure, does not contain tenants, increases urban density and creates capitalist urban rent. These negative aspects of the structure in question cause disaster risk in these parts of the city where low- and middle-income groups live in.

The other two structures (block – based and areal transformation) are mostly preferred in the areas transformed by the Law Numbered 6306, which is the subject of this thesis. The main preference reason for these two structures is chance to find vertical solutions for the same total area that allow to intervene urban infrastructure in the transformed area.

However, as stated in the introduction, these two structures of urban transformation have also downsides. These are creation of a texture independent from the urban fabric, destruction of urban memory, openness to intervention by political decisions, increase in density, ignorant of local people's budget and creation of capitalist urban land rent.

The transformation structures in questions are summarized in the following table which is compiled from the literature review detailed above chapter.

Table 3.4: General Structure of Urban Transformation in Turkey

	Definition	Created Texture Example	Opportunities	Threats	Actors
Parcel – Based Transformation	After the transformation, More intense and unplanned construction has been seen while the infrastructure is the same.	Ankara, Ragıp Tüzün Case 	○ Quick transformation of a structure, ○ Budget oriented process, ○ Preservation of urban memory	○ No possibility to intervene in urban urban infrastructure, ○ No inclusion of tenants, ○ Increase in density, ○ Rent.	○ Contractor, ○ Parcel ownership rights holders,
Block – Based Transformation	After the transformation, A common design has been built by combining parcel ownerships on a block basis.	İstanbul, Fikirtepe Case 	○ Vertical solution chance to the same total construction area that allow to intervene urban infrastructure,	○ Creation of a concept of enclosed complex texture, ○ Increase in density, ○ No inclusion of tenants ○ Ignorant of local people's budget, ○ Rent.	○ Contractor, ○ Parcel ownership rights holders, ○ Relevant municipalities,
Areal Transformation	After the transformation, A new texture has been constructed instead the breakdown part of the urban fabric.	Ankara, Dikmen Case 	○ Creation of a concept of borderless ownership, ○ Vertical solution chance to the same total area that allow to intervene urban infrastructure, ○ Possibility to include the tenants in the transformed area	○ Creation of a texture independent from the urban fabric, ○ Destruction of urban memory ○ Openness to intervention by political decisions, ○ Increase in density, ○ Ignorant of local people's budget, ○ Rent	○ Large construction companies ○ State- upported housing companies ○ Parcel ownership rights holders, ○ Tenants ○ Relevant municipalities ○ Ministryof Environment and Urbanization.

**This table is compiled from the literature review detailed above chapter.*

As it can be seen from the above table, the transformation process under the Law Numbered 6306 has actors and stakeholders from municipalities to state - supported large housing companies.

Essential parts of the Law in question detailed below chapter “A Law Based Review Law Numbered 6306 on Transformation of Areas Under Disaster Risk”.

3.3 A Law Based Review: Law Numbered 6306 on Transformation of Areas Under Disaster Risk

The last devastating earthquake ($M_w > 6.9$) occurred in our country on 23 October 2011 in Lake Van region. In the earthquake of 7.1 magnitude in October that lasted 25 seconds and in the earthquake of 5.7 magnitude in November 2011, 644 citizens lost their lives in total. Following this Earthquake, on May 31, 2012, Law Numbered 6306 on the Transformation of Areas Under Disaster Risk was enacted on Official Gazetta No: 28309. The implementation regulation of the law in question was published on August 4, 2012. The very short time between the law and the implementation regulation shows the urgency and importance of the law. With this law, the scope of the concept of transformation was narrowed down to areas at risk of destruction, on the other hand, its application areas were expanded.

In this part of th thesis, the process followed by the “Law Numbered 6306” which is the subject of the thesis, will be examined shortly.

With the second article of the law, the concept of "administration" was authorized in order to prevent disaster risk. The administration concept, which is the main authority, is expressed by the Ministry of Environment, Urbanization and Climate Change and TOKI and affiliates. These institutions are authorized to make studies, parcelization and plans in all types and scales within the scope of the law. This situation carries the risk of creating a centralization in decision making process.

With the aforementioned law, the purpose of transforming areas under disaster risk is described as follows:

“To determine the procedures and principles for improvement and renewal in order to establish healthy and safe living environments in accordance with science, art norms and standards in areas under disaster risks.”

With the mentioned urban transformation Law, it is planning to carrying out studies not only for the renewal of unhealthy and unsafe buildings in the risky areas, but also buildings that completed their economic life.

Other two important points come to the fore with this law. These are;

- The provision of reputable lands in city centers,
- Providing “specific” district municipalities to plan implementations independent from metropolitan and local municipalities.

The lands provided by district municipalities in city centers are divided into 3 main concepts by law. These are;

- Risky structure,
- Reserve structure area,
- Risky area.

However, only the risky area among them is examined within the scope of this thesis. The definition of the risky area in the law is as follows.

“The area that has the risk of causing loss of life and property due to the ground structure or the construction on it, determined by the Ministry of Environment, Urbanization and Climate Change or the relevant local administration with the opinion of the Disaster and Emergency Management Authority (AFAD) and decided by the Presidency Board upon the proposal of the Ministry.”

As of 10.12.2020, 269 risky areas have been announced by the Ministry in 59 different provinces. The distribution of these risky areas is given in the table below.

Table 3.5: Distribution of The Risky Areas in Turkey

Istanbul Avrupa	55	Bursa	5	Sivas	2
Istanbul Anadolu	15	Kayseri	3	Konya	2
Ankara	22	Antalya	3	Adapazarı	2
İzmir	8	Manisa	3	Yalova	1
Kütahya	15	Samsun	3	Diyarbakır	1
Adana	9	Eskişehir	3	Van	1
İzmit	7	Elazığ	2	<u>Other 38</u> <u>Provinces</u>	<u>99</u>
Erzincan	6	Erzurum	2		

Source: 2021 Ministry of Environment, Urbanization and Climate Change, ATLAS Application

In this process, many problems such as legal conflict with local people, lack of space and financial difficulties were encountered. Therefore, many changes and amendments have been made in the law in order to enhance incentives to overcome these problems while speeding up the process and decreasing the participation. These arrangements are detailed below.

- Within the scope of Law, at least 1.5 hectares of land size limit specified in the definition of “Risky Area” has been removed.
- The Added Value Tax rate, which is 18% in all kinds of construction activities, is taken as 1% in the urban transformation areas under disaster risk.
- Credit interest rates are reduced by providing state support. The law also provides rent assistance to beneficiaries. Moreover, it allocates housing in some special cases where agreement model has been used.
- Evacuation procedures can be done within 2-4 months without a majority decision of the right holders in the Risky Areas.

- Within the scope of law, pasture and marginal areas are allowed to be opened to construction as reserve areas.
- Urban transformation is also allowed in the regions containing cultural and natural assets.

After the Elazig earthquake in 2020, amendments were also made in the Development Law numbered 3194 which aimed at “horizontal architecture”, however the law numbered 6306 was also excluded from all the changes.

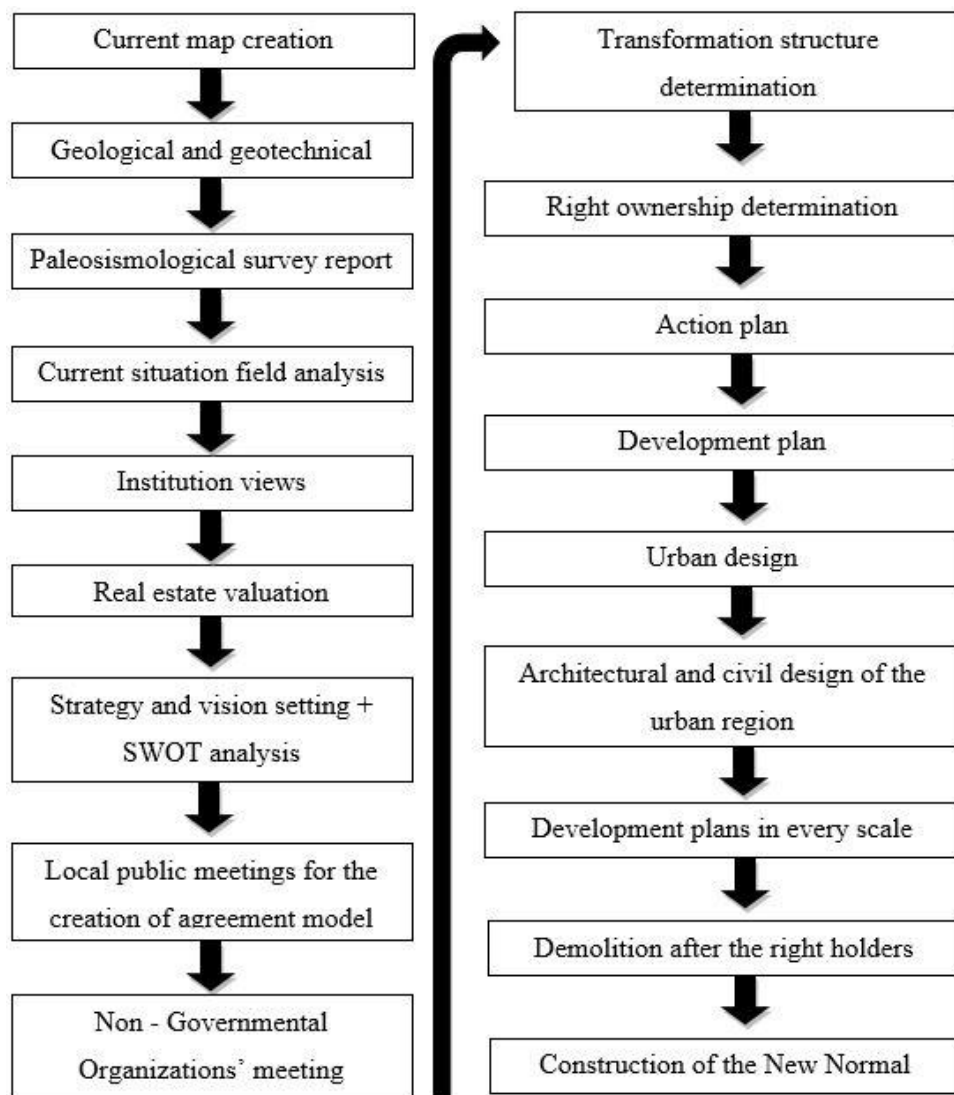


Figure 3.1: Technical Procedures of the Urban Transformation Project Until the Application

The technical process carried out until the amendments related “horizontal architecture” in all the risky areas mentioned above is summarized in the figure below.

Although in theory the method of application is the same as in other plans, in practice it is also completely different.

The main focus of this thesis is deficiencies of the detailed law. In this context application areas of the law are examined in detail in the next section with in this context.

3.4 Summary of the Chapter

Urbanization processes shaped by industrialization and wars in the world have been shaped differently due to the fact that wars, industrialization and subsequent migration to the city took place later consciously due to the regime change process in Turkey. Accordingly, 5 different dominant urbanization types are seen in 5 periods of cities in Turkey. These urbanization types are transformed in 3 different ways on the basis of parcel, block island and area for 3 different reasons that formed area selection criteria in case studies analysis.

This thesis deals with the contemporary urban parts, which is the last of the 5 urbanization types detailed in the relevant section above, and which transformed based on block or area within the framework of the Law Numbered 6306.

The first important inference in this process is that the areas transformed by Law Numbered 6306 are turning into either residence or multi-storey public housing estates, regardless of their previous structure type and structure qualities.

Another important point that should not be overlooked in this inferences is definitions of risky area and plan changes boundaries.

Although these suspicious border definitions and the changes that made for the benefit of certain segments increases the density in order to protect the interests of the contractor and the local people, while solving the structural problems, they create urban parts that do not solve the infrastructure problem. On the contrary, they increase it and have a precedent for its incompatible immediate environment while damaging the city silhouette and create a black hole effect.

Another important inference is that the peasants who can not become urbanized and the working class who make up the poor, directed these development processes of the cities by settling in risky areas in the central district and outfringing the city in the border. As a result of the interests of the central and local governments, the process in question turned into the cycle illustrated below.

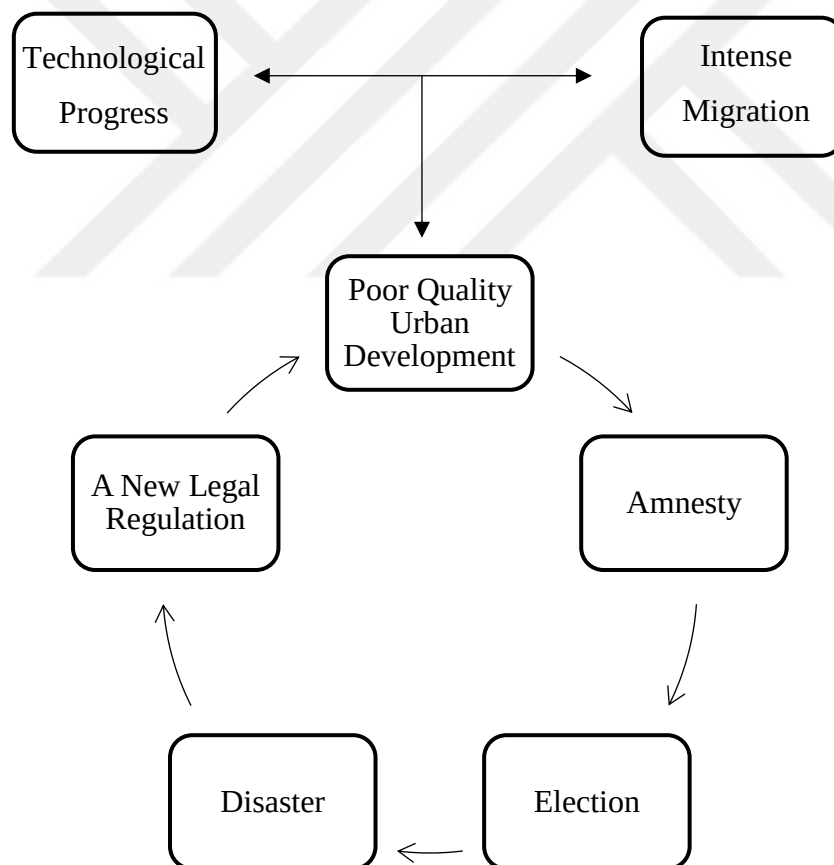


Figure 3.2: Urbanization Cycles in Cities of Turkey

Therefore, this cycle has been the subject of trade rather than public interest by the segments detailed in the relevant section above.

As can be seen in the “A Law Based Review” section, the law and the amendments made in the law are also parallel to the described problems in the literature review above.

Last but not for most, as a concluding remark; the analyzes in the next chapter, case studies analysis, were put into patterns in this context. In this way, as stated in the international view at disaster management section, it is aimed to overlap the literature review with spatial and verbal analyzes and to create a flow.





CHAPTER 4

ANALYSIS OF SELECTED CASE STUDY AREAS TRANSFORMED UNDER THE LAW

*“By the end of this story every one of us will own
a land.”*

Anonymous

In this chapter several case areas that were selected among the areas that have already transformed through the Law will be investigated and evaluated. The findings are discussed based on the hypothesis of the thesis that would be explained in detailed through this chapter as well.

Until this chapter, first of all, the major problem which is observed was defined as hypothesis. The subject field that the major problem belongs to is reviewed in the literature review. Therefore, in the second chapter, international studies on DRR and urban resilience, which are thought to be the cornerstones of urban transformation, are included. Inferences from these studies are used in the construction of evaluation criteria in this section. Finally, in the third chapter, the historical developments of the cities of Turkey, as being the main context of this study, the general structure of urban transformation and the law numbered 6306 are examined. Likewise, the inferences made from this section were used in the creation of evaluation criteria as well as field selection.

On the other hand, in this chapter “Risky Areas” transformed within the scope of Law Numbered as 6306 on Transformation of Disaster Risky Areas which is announced in the Official Gazette in 2012 after Van Earthquakes will be analyzed. Within the scope of these analyzes, the evaluation criteria were determined first. These evaluation criteria are narrowed down by the literature review detailed above and the professional experiences of the author in the field.

After determining the evaluation criteria, the case area selection was made. The selection criteria for these areas are specified in the relevant section.

At the end of this process, the selected areas were introduced with their general information. Following the introduction of the fields, spatial and verbal analyzes be conducted within the scope of the evaluation criteria previously defined. Finally, the findings from these spatial and verbal analysis are summarized with overall analysis as empirical and factorarial analysis.

4.1 Evaluation Criteria

The areas that have been transformed within the scope of Law Numbered as 6306 is examined in 3 categories according to the concepts (Management¹, Urbanization² and Transformation³) that constitute and refer to the 3 main chapters of this thesis. They are International View at Disaster Management as Disaster Risk¹, National View at Transformation of Urbanization as Planning Criteria² and Analysis of Case Studies as Agreement Model³. Categorization of these case studies that transformed within the scope of Law Numbered as 6306 will be evaluated also in layers in the dimension of resilience of urban transformation to disasters those are defined by Cutter (2008) as follows:

The ecological¹ resilience, social resilience², economic resilience³, institutional resilience⁴ and infrastructural resilience⁵.

The layers in question were reorganized with the Resilience definitions of OECD, UNISDRR (Sendai Framework) and Rockefeller Foundation that are detailed above. From these dimensions infrastructural resilience, economical resilience and ecological resilience are used in the evaluation criteria table. Ecological/environmental resilience is used to analyse the disaster risk. Infrastructural/physical resilience is used to analyse planning criteria.

Finally, economical resilience is used to analyse agreement models in the urban transformation implementations carried out in the case study areas. Therefore the first stages of the evaluation criteria were defined.

In the second stage, the analysis which should be conducted to test the research questions of this thesis are determined. Spatial analysis are subcategorized according to the results that they will give. These analyzes are subcategorized as A, B and C in the table, their details are given below.

The table that demonstrate evaluation criteria in question is given below.

Table 4.1: Evaluation Criteria Table

<u>Evaluation</u>			<u>Spatial</u>	<u>Verbal</u>
<u>Concepts</u>	<u>Categories</u>	<u>Dimensions</u>	<u>Analysis</u>	
Management	Disaster Risk	Environment	A	Institutional Analysis With The In - Depth Interviews
Urbanization	Planning Criteria	Infrastructure	B	
Transformation	Agreement Model	Economy	C	

The verbal analyzes mentioned in the table will as symbols are explained below.

A

- Morphology and slope status
- Geological structure and suitability for settlement
- Earthquake hazard

- Structure
 - Age and Material Technique
- Negativity parameters
 - Heavy overhead and vertical - horizontal irregularity
- Risks arising from non-residential activities
 - Short column and weak floors
- Flooding and liquefaction risk *only for ground problems

These analysis are also defined as it is in the implementing regulation of the law by Ministry of Environment, Urbanization and Climate Change. Of course, in Turkey, it was not possible to access all of these data for each field, but enough spatial analysis was made for each field to compare before and after, to answer research question. In the analyzes for which permission cannot be obtained or technically impossible for many reasons, it has been continued with the assumption that the regulations aiming at the design of earthquake resistant structures have achieved these objectives.

B

- Upper scale development plan
- Development plan and urban design project
- Floor area coefficient and construction area coefficient
- Density and population structure
- State and public partnership share
- Standart urban urban infrastructure,
- Transportation and infrastructure
- Block and Parcel number and sizes

The data required for these analyzes that are taken from the relevant institutions detailed in section one which are missing in some of the case areas. The missing data available is either acquired on site by the author or completed by digitizing from satellite images and internet data.

C

- Right ownership
- The new normal and its affordability

These evaluation criteria had been also effective in the field selection for the case study analysis in terms of finding or creating an available data for analysis. The details of the area selection are given in the following section “Area Selection for the Analysis of Case Studies”.

4.2 Area Selection for the Analysis of Case Studies

In this part of the thesis, options for choosing an area to be used in case analysis studies are explained.

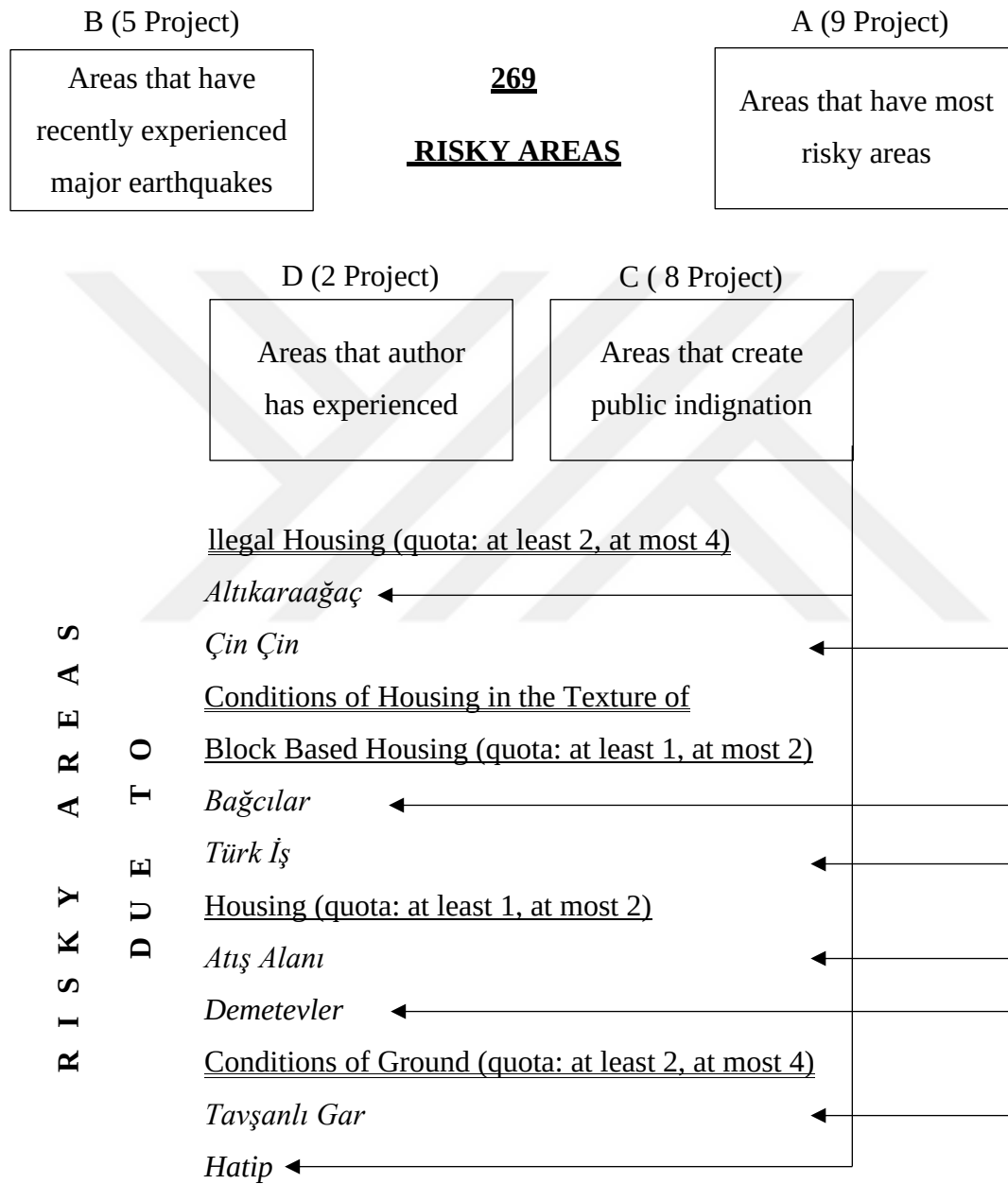
As indicated above, there are 269 Risky Areas in 59 provinces in Turkey. These Risky Areas are focused in three cities. These provinces are Istanbul with 70 Risk Areas (55 of them on the European side) Ankara with 22 Risky Areas and Kütahya with 15 Risk Areas. Therefore, the Risky Areas in these provinces were examined first in the field selection.

Another criterion in the field selection phase has been the provinces that have recently experienced major earthquakes. In this context, Risky Areas in Erzincan, Düzce, Bolu, Van, Elazığ and İzmir were examined.

The third criterion in the field selection process is urban transformation implementations, whose area, budget or public indignation is quite large. In this context, Istanbul Kadıköy Fikirtepe Urban Transformation Project, Ankara New Mamak Urban Transformation Project and Antalya Kepez Sur Yapı Urban Transformation Project were examined.

The last criterion in the field selection process is to examine the risky areas that the author has experienced in his educational and professional life. In this framework, Risky Areas in Eskişehir and Samsun are included in the options.

Table 4.2: Area Selection Algorithm



The risky areas analyzed are grouped according to the urbanization features detailed in the previous section. These features are both main problems behind urban transformation which are illegal housing, housing conditions and ground conditions and construction types as mass housing and flat ownership. With illegal housing only squatter housing is examined as a construction type. Moreover quotas are given for each of the groupings stated below. The grouping and their quotas (at most 08 field) in question are as follows.

Risky Areas Due To The

- Illegal Housing (at least 2, at most 4)
- Conditions of Housing in the Texture of
 - Mass or i.e. Block Based Housing (at least 1, at most 2)
 - Parcel Based Housing (at least 1, at most 2)
- Conditions of Ground (at least 2, at most 4)

Of course, access to “Limited Data” has been one of the top priorities in the selection of fields in the options. The other priorities are as follows:

Quite Large or Small Area: The area is either too large or too small for spatial analysis. While small areas will not yield meaningful results, large areas are detailed enough to be the subject of further studies.

Legal Issues: Since the residents of the area brought the project to the judicial process, although it was suitable for spatial analysis, it was not found morally appropriate.

Revizing: The project in the area is being revised in line with the needs arising from a recent disaster. Therefore, it is not suitable for spatial analysis.

Stuck on Quota: Quotas are allocated to each spatial analysis category. Although the area is suitable for spatial analysis, it was excluded from the quota because it was believed other areas with the same characteristics would yield more meaningful results.

The alternative 24 fields and their fundamental properties are given in the below table.



Table 4.3: Area Selection for the Analysis of Case Studi

No	Hazard Type	City	District	Name	Authority For Transformation	Size (Ha.)	Criteria	Texture	Phase	Year	Situation
01	Earthquake	İstanbul	Bağcılar Albayrak	Şehr-i Bağcılar	Bağcılar Municipality	3	That have most risky areas	Cooperative	Completed	2013	SELECTED
02	Earthquake	İstanbul	Bağcılar	THY Sitesi Bölüm B	Bağcılar Municipality	2		Cooperative	Completed	2013	<i>Stuck on Quota</i>
03	Earthquake	İstanbul	Bağcılar	THY Sitesi Bölüm A, C	Bağcılar Municipality	5		Cooperative	Project	2013	<i>Stuck on Quota</i>
04	Earthquake	Ankara	Altındağ	Türk İş Urban Transformation Project	Altındağ Municipality	34		Cooperative	Project	2013	SELECTED
05	Earthquake	Ankara	Çankaya Namık Kemal	Saraçoğlu Urban Transformation Project	Ministry of Environment, Urbanization and Climate Change	15		First Mass Housing in the Republic	Project	2013	<i>Legal Issues</i>
06	Earthquake	İstanbul	Esenler	Emlak Konut Atış Alanı	Esenler Municipality	15		Flat Ownership	Completed	2012	SELECTED
07	Earthquake	Ankara	Yenimahalle	Demet Urban Transformation Project	Ministry of Environment, Urbanization and Climate Change	160		Flat Ownership	Project	2013	SELECTED
08	Flood, Liquefaction Earthquake	Kütahya	Tavşanlı Gar	Büyük Tavşanlı Urban Transformation Project	Tavşanlı Municipality	320		Flat Ownership	Project	2018	SELECTED
09	Earthquake	İstanbul	Sarıyer	Küçük Armutlu Urban Transformation Project	Sarıyer Municipality	140		Squatter	Project	2016	<i>Quite Large Area</i>
10	Earthquake	İstanbul	Gazi Osman Paşa	We Haliç	Gazi Osman Paşa Municipality	5		Squatter	Construction	2013	<i>Limited Data</i>
11	Earthquake	Ankara	Altındağ	Çin Çin Urban Transformation Project	Altındağ Municipality	20		Squatter	Construction	2013	SELECTED
12	Earthquake	Düzce	Kültür	Kültür Urban Transformation Project	Düzce Municipality	22	That had experienced major Earthquake recently	Flat Ownership	Project	2019	<i>Stuck on Quota</i>
13	Earthquake	Bolu	Gerede	Fevzi Çakmak UrbanTransformation Project	Gerede Municipality	11		Flat Ownership	Project	2017	<i>Stuck on Quota</i>
14	Earthquake	Erzincan	Demirkent	Demirkent Urban Transformation Project	Erzincan Municipality	5		Squatter	Project	2016	<i>Quite Small Area</i>
15	Earthquake	İzmir	Karabağlar	Karabağlar Urban Transformation Project	İzmir Metropolitan Municipality	540		Squatter	Project	2017	<i>Revizing</i>

Table 4.3: (continued)

No	Hazard Type	City	District	Name	Authority For Transformation	Size (Ha.)	Criteria	Texture	Phase	Year	Situation
16	Liquefaction Earthquake	Elâ zığ	Merkez	Sürsürü Urban Transformation Project	Elazığ Municipality	25	That had experienced major Earthquake recently	Historical	Project	2020	Limited Data
17	Earthquake	İstanbul	Kadıköy Fikirtepe	42 Block Based Independent Project	Ministry of Environment, Urbanization and Climate Change	155	That create public indignation	Flat Ownership	Construction	2013	Quite Large Area
18	Earthquake	Ankara	Mamak Altıkaraağaç	Yeni Mamak Urban Transformation Project II	Mamak Municipality	70		Squatter	Completed	2013	SELECTED
19	Earthquake	Ankara	Mamak Gülseren	Yeni Mamak Urban Transformation Project II	Mamak Municipality	50		Squatter	Completed	2013	Stuck on Quota
20	Flood, Liquefaction Earthquake	Ankara	Mamak Hatip River	Yeni Mamak Urban Transformation Project I	Ankara Metropolitan Municipality	45		Squatter	Project	2013	SELECTED
21	Earthquake	Antalya	Kepez Santral	Sur Antalya	Antalya Metropolitan Municipality	150		Squatter	Construction	2017	Quite Large Area
22	Earthquake	Manisa	Yunus Emre	Laleli Urban Transformation Project	Yunus Emre Belediyesi	75		Cooperative	Project	2015	Legal Issues
23	Flood, Liquefaction Earthquake	Eskişehir	Tepebaşı	Porsuk Urban Transformation Project	Eskişehir Büyükşehir Belediyesi	60	That the author had experienced	Flat Ownership	Project	2013	Legal Issues
24	Earthquake	Samsun	Canik	Stadyum Urban Transformation Project	Samsun Metropolitan Municipality	20		Squatter	Project	2013	Stuck on Quota

* In all of the areas, housing conditions have been observed as a hazard type.

Within the scope of the first of the criteria detailed above, 4 areas in Istanbul European Side and Ankara and 1 area in Kütahya were examined. The characteristics of the areas in question and the reasons for being selected or not selected are as follows:

Istanbul Bağcılar: The mass housing area is located in one of the most densely populated areas of Istanbul. The fact that city region will feel the expected Great Istanbul Earthquake has made the Albayrak site, which was transformed from the mass housing area built by the cooperative into a residence to be built by a private construction company. It is selected as one of the case study areas.

Istanbul Atış Alanı: There are 2 main factors that play a role in the selection of the area in question. These are the transformation of the area with the comdiminium regime texture¹ by Emlak Konut GYO, the public company of TOKI². Finally the area is adjacent to reserve building stock area which is now a military area. Therefore, the Risky Area has been found suitable as a case study area.

Istanbul Küçük Armutlu: Although it has been illegally built, the area covers a very large area. With these features, it was not found suitable as a case study area.

Istanbul Gazi Osman Paşa: The area in question has been illegally built like Küçük Armutlu. However, the transformation in this area is made with high investment (110 million dollars) thus, it create indignation in the public. The name of the project in question is We Haliç and residences with Golden Horn view are being built. Therefore, the data of the project, which was carried out with great confidentiality, could not be reached. With these features, it was not found suitable as a case study area.

Ankara Türk İş: The area is a mass housing area built by the union cooperative, and due to its location. With these features, it was found suitable as a case study area.

Ankara Saraçoğlu: The area is the first mass housing project of the Republic and it is aimed to be protected with this feature. Since the transformation process of the region continues in the judiciary, it has not been found suitable as an area of case study.

Ankara Demet Evler: The area was formed by the transformation of illegal construction into flat ownership texture. This situation has caused the formation of a very dense urbanization in the region. With this feature, the second transformation that is required in the region can only be made by the relevant Ministry. Therefore, detailed data could be accessed and the Risky Area was found suitable as a field of case study.

Ankara Çin Çin: The area features an illegally built ghetto. For many years, the region remained as the most dangerous area of Ankara, and no one could not enter the region, including the state police. However, with Law Numbered as 6306, the region was evacuated and the transformation was made through TOKİ. With these features, it was found suitable as a case study area.

Kütahya Tavşanlı: The area is in the flood zone of the stream passing through the settlement. In addition, the area in question carries the risk of earthquake and subsequent liquefaction. The region includes all risks and data is easy to access. Therefore, it has been found suitable as an area of case study.

Within the scope of the second criteria, areas are examined in Erzincan, Düzce, Bolu, Elazığ and İzmir. The characteristics of the areas in question and the reasons for being selected or not selected are as follows:

Düzce Kültür Mahallesi: Düzce is one of the provinces that experienced the 1999 Eastern Marmara Earthquakes. However, due to the selection of Ankara Demetevler and Istanbul Atış Alanı, which are the more suitable areas that is mentioned above, for the quota of the group covering the features of the mentioned Risky Area, the area in question was not found suitable as a case study area.

Bolu Gerede: Gerede, which is defined as the city with a fault line passing through it, is another city that experienced the East Marmara Earthquakes. The area in question has not been found suitable as the study area for the same reasons as Düzce.

Erzincan Demir Kent: Erzincan experienced the earthquake that initiated the Earthquake Migration in 1939 and the 1992 earthquake. Therefore, the Risky Areas here have been examined. However, since the risky area is much smaller than other areas with the same texture (squatter housing) it was not found suitable as a case study area.

İzmir Karabağlar: The area in question is one of Turkey's largest transformation implementations. However, after the earthquake in 2020, it is revising according to the needs of the city. Therefore, the Risky Area has not been found suitable as a case study area.

Elazığ Sürsürü: After the earthquake in 2020, ground problems were seen in the historical Sürsürü neighborhood. Therefore, its project has been accelerated. However the detailed data could not be found in accordance with the private planning firm's confidentiality agreement. With this feature, it has not been found suitable enough to as a case study area.

Within the scope of the third criteria, as stated above, three implementations were examined. The characteristics of the implementations in question and the reasons for being selected or not selected are as follows.

Istanbul Fikirtepe: Fikirtepe is the biggest urban transformation project of the Republic, which caused indignation in public opinion with its capital. However, 42 separate block-based implementations, whose construction started in the area, continue. In the remaining areas, the authority has been transferred to the relevant ministry. Therefore, the field in question was considered as a separate thesis topic and was not found suitable as a study area.

Ankara Yeni Mamak: The area in question is a place where the writer was born and raised. Therefore, he have mastered the urban development and transformation processes of the area. This situation has also provided convenience in accessing data. In addition, there are flood and liquefaction risks in the Hatip Stream transformation area. On the other hand, the other 2 stages of the field are positioned in the city to be evaluated together. This situation make this areas suitable as a case study.

Antalya Kepez: 70,000 people will live in the plan area which is the largest urban transformation project in Turkey under a single roof (Sur Yapı). However, the size of the area made it very difficult to access the data required for the analysis. Therefore, the field in question was seen as a separate thesis subject like Fikirtepe and was not found suitable as a case study area.

Within the scope of the last criterion, an area was examined in Eskişehir and Samsun.

Eskişehir Porsuk: The project of the area in question was carried out by Istanbul Technical University. However, the judicial process in the field is still continuing. Therefore, the Risky Area has not been found suitable as a case study area. But it has found suitable as a suggestion plan area.

Samsun Canik: Due to the selection of the above-mentioned more suitable areas, Istanbul Küçük Armutlu and Ankara Yeni Mamak, for the quota of the group covering the characteristics of the Risky Area, the area in question was not found suitable as a case study area.

The fields selected from the options detailed above are given below as groups.

Risky Areas Due To Illegal Housing

- Çin Çin
- Altıkaraağaç

Risky Areas Due To Illegal Housing

- Çin Çin
- Altıkaraağaç

Risky Areas Due To The Conditions of Housing

Mass Housing (Block Based)

- Türk – İş
- Albayrak

Flat Ownership Regime (Parcel Based)

- Demetevler
- Atış Alanı

Risky Areas Due To The Conditions of Ground

- Hatip Stream
- Tavşanlı Gar

4.3 Introduction and General Information of Selected Case Areas

In this section, general information about case study areas will be introduced. Historical development of urbanization in Turkey is given in the relevant section above. Although the study areas also comply with this process, each field differs from other fields with its unique features. These features will be summarized in this section. The aforementioned differences have caused the formation of a different property relation in each area. The subject of this thesis is that these four different property relations are transformed into the fifth type with the relevant law and lose the features that distinguish urban areas from each other. All of the information given below has been provided during face to face talks with the relevant municipalities. These data have been mostly prepared jointly with the Governorship, District Governorship and Conservation Regional Boards of Heritage.

4.3.1 Ankara

Mamak

Mamak literally means "military and civil settlement area". In accordance with its language origin, it is identified with the military area and prison it hosts in the settlement.

Its historical development also sheds light on the current structure of a city. In this context, the historical development of the case study areas is also briefly summarized.

During the Roman period, the Mamak region was famous for its water resources. The water of the Roman baths in Ankara comes from the water gallery in Kayaş. This gallery continues to be the water source of Ankara until the end of the 1950s. In the same period, the eastern gate of Ankara was Mamak.

With the conquest of Anatolia by the Turks, Turkish camps are settled in some of the current neighborhoods of Mamak. Therefore, almost all of the names in the region such as Bayındır and Kayaş today are taken from the Turkish camps.

Ankara - Kayaş Commuter Train Line (1929) today's Başkent Ray, the first public transportation vehicle of Ankara, was established in the district of Mamak during the Republic Period. However, the Mamak Region does not appear in Ankara's first city planning.

The development plan made by Hermann Jansen is given in the figure below.

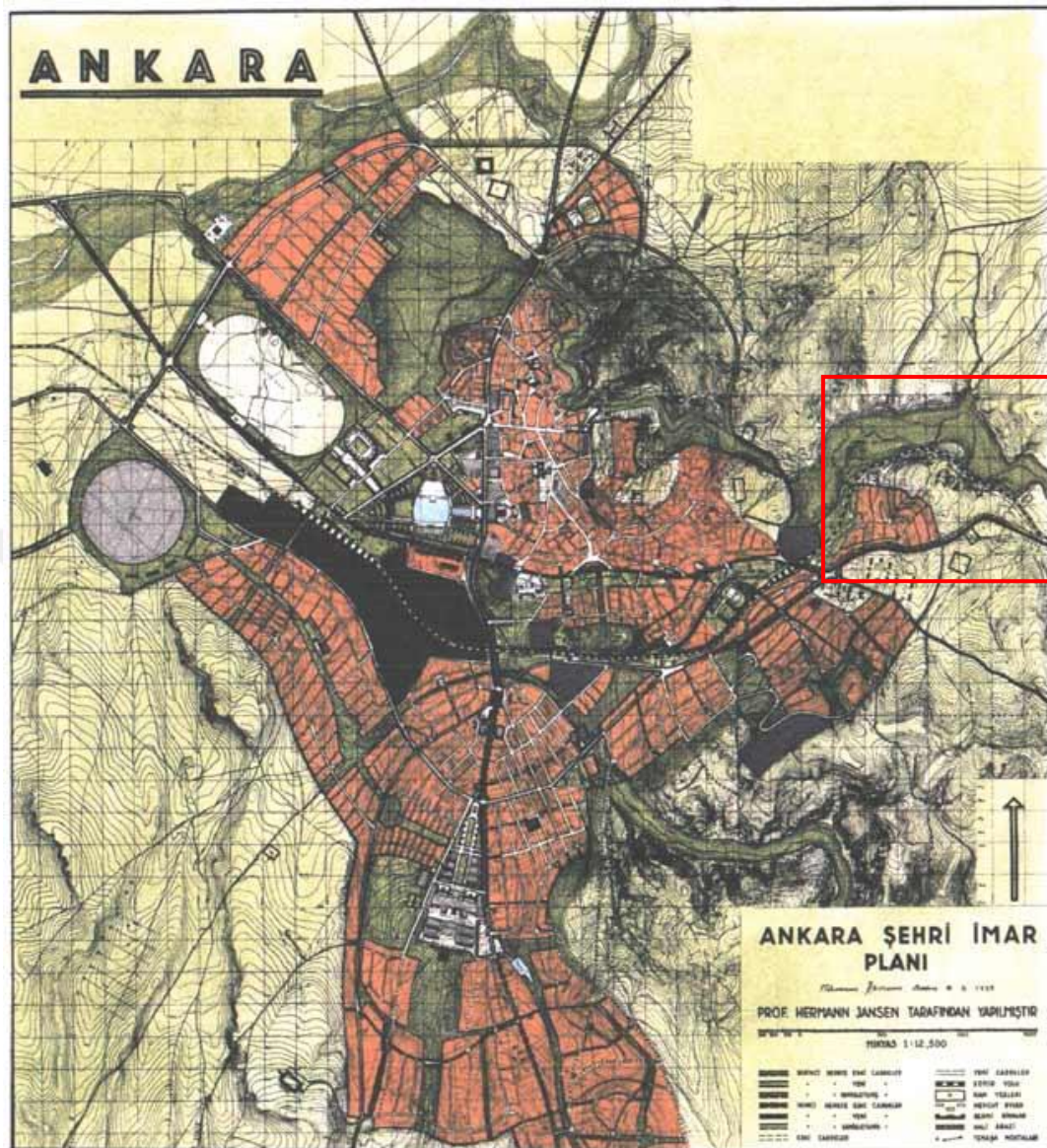


Figure 4.1: Hermann Jansen Plan of Ankara

During this period, Mamak was a rural settlement consisting of Kayaş, Araplar and İmrahor villages. However, as of the 1930s, the Mamak Region has started to host squatter housing since the suburban train line was established.

When it comes to the 1950s, the Ankara city plan is revised upon the Prime Minister Adnan Menderes' special request for the planning of the metropolitan cities, especially Ankara, Istanbul and Izmir.

Therefore, a planned construction starts in the Mamak region of Çankaya district, especially in Demirlibahçe. In the same period, in 1957, a great flood occurred over the Hatip Stream. There was no rainfall in the Mamak region on that day. The flood was formed as a result of heavy rain and hail in Elmadağ. Approximately 3000 slums were affected especially in the vicinity of Demirlibahçe, Gülseren and Hatip stream which is thesis case study area. Hatip stream rose about 10 meters in this flood. After this flood, illegal settlements fringed up to the hills of Altıkaraağaç and others and flood traps were established in İnce su, Üreğil and Kusunlar streams. Afterwards, Mavi Göl Dam was built. However, the region is still built under the risk of flooding.

The figure showing the water resources of study areas in Ankara is given below.



Figure 4.2: River Network of East Ankara Metropolitan

In the Mamak region, where planned housing is expected to take place, the process of squatter settlement accelerates as the migration to the city is higher than it had been expected. Fruit trees are planted in the gardens of these squatters and small coops are created. Village life has moved to the metropolitan of Ankara.

As a result of the intense immigration wave that started from the 1970s until the 1990s, 90 percent of Mamak was made up of slums.

Therefore, the class living in the class living in Mamak has become much more pronounced. With the first step taken to solve its own problems, Mamak leaves Çankaya district in 1983 and becomes a district. The first municipal elections are held in 1984. Urbanization and development movements that started from this date gained momentum after 1989. These activities continue today with the Law Numbered As 6306 and are examined within the scope of this thesis.

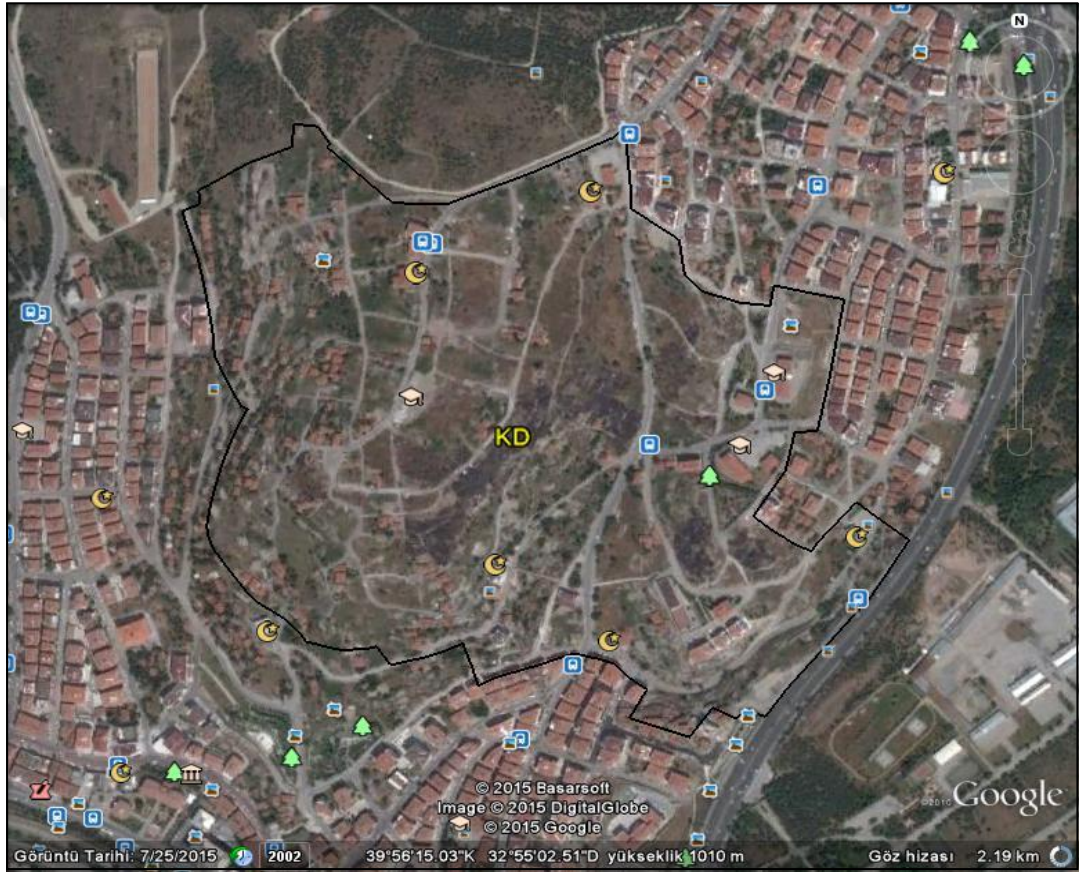


Figure 4.3: Altıkaraağaç (Illegal Housing)

The case study areas in Mamak are shown in the figures.



Figure 4.4: Hatip River (Risky Ground Condition – Flood Field)

Altındağ

Throughout history, Ankara has been established in the Altındağ region. Therefore, Altındağ is known as "Historical Ankara". The history of the settlement is considered to be identical to the history of Ankara Castle. Although it dates back to the Paleolithic ages, the most enlightening findings can not go beyond the Hittites. It is known that the inner castle section of Ankara Castle was open to settlement during the Hittites period, which corresponds to 4000-1200 BC. Ankara joined the Roman lands in 25 BC and became the capital of the region. In the year 10, a temple was built in the name of Emperor Augustus at the location of Hacı Bayram Mosque. In this period, Emperor Augustus took the example of the Greek city-states and transformed Ankara into a free city consisting of 12 districts. The foundations of today's Ankara were laid with this decision. In 1073, the city passed into the hands of the Turks. After changing hands frequently in the 14th century, Ankara falls under the sovereignty of the Ottomans, and in 1402 it becomes the scene of the Ankara War. In the Ottoman period, many bazaars were built with the development of trade in Ankara, which was the center of the Great Anatolian Province.

Ankara, which became the capital city with the proclamation of the Republic, is built on this historical heritage. In the first years of the Republic, settlement in Altındağ firstly started in the aforementioned place called historical Ankara and expanded over time with development activities and subsequent illegal settlements. Therefore, the first settlements of Ankara in the Republic period were the castle and the hills around it. These settlements around Bentderesi were İsmet Paşa, Hıdırlık, Yenidoğan, ÇinÇin, Hamamönü, Cebeci, Demirlibahçe and rural settlements. Regions such as Yenışehir, Bahçelievler and Çankaya have become settlement units that have developed as the city grows.

This study only examines the ÇinÇin and Türk-İş residences in Altındağ. Therefore, the development of these areas will be mentioned after this point.

During these years, people escaping from war conditions, disasters and rural poverty settled in Altındağ hills by building squatters. Hıdırlık hill is one of these settlements. Since it is one of the dominant hills of Ankara, 110 meters high from Bentderesi, where Anıtkabir was planned to be built first.

The narratives and literature of that period indicate that Albanians who were homeless in the Akköprü flood in the 1930s and Bulgarian immigrants settled in Kızılcahamam during the Ottoman period were settled in Aktaş neighborhood. These resettlement activities have prioritized the spreading of the illegal housing on the Hıdırlık hill to the Altındağ hill, which includes Yenidoğan, due to its proximity to Ulus, the city center. The region has been a place where Albanians and Bulgarian immigrants, as well as Kurds from Eastern Anatolia (mostly Kars and Erzurum), Gypsies and those who coming from Ankara's villages such as Haymana and Kırıkkale "share poverty".

ÇinÇin developed over time as an extension of the Yenidoğan due to the lower land value. Altındağ Mayor Asım Balcı defined the region at the time as follows:

"This region, where the bentderesi passed through, is a ghetto today where criminal organizations, especially drugs, live and continue their activities."

Before 2004, 70 percent of Altındağ was unzoned and 85 percent was consisted of squatters. It has undergone a great change with the implementations implemented in the last 17 years and has become fully zoned. As a result of these urban transformation activities, the region was renovated through TOKI. The renewed ÇinÇin is now called Gültepe. The people of the region have settled in Saraycık district of Sincan and Hüseyingazi, Şafaktepe and Demirlibahçe districts of Mamak.

In the 1960s, Turkey's first furniture industry is74 built on an area of 500 hectares in Altındağ. 5644 businesses in the region host approximately 22575 people. Therefore, the need for housing arose for the workers at that time, and between the years 1968 1972 Türk - İş union cooperative built a mass - housing estate between Altınpark and Siteler consisting of 281 blocks and 2566 flats.

The case study areas in Altındağ are shown in the figures below.



Figure 4.5: Türk - İş (Block-Based Mass Housing)



Figure 4.6: ÇinÇin (Illegal Housing)

Yeni Mahalle

The first residential location selection in the Yenimahalle area was made by the public hand across the A.O.Ç. (Atatürk Forest Farm) land in today's Ragıp Tüzün district after the housing demands of poor rural population who migrated to Ankara.

However, after the Second World War, the migration that exceeded the expectations of the state which is detailed in the relevant section above made the settlement stock inadequate and indirectly caused the immigrant population to find their own solution. In the 1970s, the formation of squatter areas in the Yenimahalle region accelerated due to the location of the industrial zones (OSTİM, İvedik and later Şaşmaz). These structures passed to the flat ownership regime with the parcel - based transformations in the 1980s. However, this transformation has created a very dense urban texture in the region. Therefore, the texture in question need to be transformed again today. This transformation continues with The Law Numbered As 6306 and is examined with this thesis.

The case study area in Yenimahalle is shown in the figure below.



Figure 4.7: Demetevler (Parcel-Based Flat Ownership Regime)

4.3.2 Kütahya

Tavşanlı

The history of the first settlement in Tavşanlı goes back 6000 years (4000 BC) from today. As a result of the research and archaeological excavations carried out in the Tavşanlı plain, it has been understood that the city has been a residential area since the First Mines Age.

Tunçbilek and Seyitömer Thermal Power Plants, which have been producing electrical energy since 1956, and the West Lignite Enterprise (GLİ) Directorate, which has been operating since 1941, play a great role in Tavşanlı and Turkey's economy. Approximately 2.5% of Turkey's total electricity production is generating in Tavşanlı. Therefore, Tavşanlı is a mining city in its full sense. The mining sector has caused the development and diversification of commercial and social activities in the district and consequently the district serves as an administrative center for the surrounding settlements. Organized Industrial Zone (OSB) and Small and Medium Sized Art Industry Site (KSSS) in the district are other employment resources. However, young children are seen in these industrial activities. This situation also affected the educational and subsequent social life and social structure in the settlement. Due to the planned urban transformation activities in the settlement, the construction sector is another sector that has the potential to develop in the next period.

The geomorphological structure of Tavşanlı, which consists of a plateau, has also caused the development of animal husbandry activities. The Tavşanlı plain which is located in the south of the study area has been registered as the "Great Plain Protection Area" within the scope of the Law Numbered As 5403 on Soil Conservation and Land Use. However, the hydrogeological structure of the region causes the absolute arable area to be low in the plain. Therefore, in agricultural lands, rent is high and its impact on the economic structure of the district is low.

The urban population of Tavşanlı district, which is located 49 km northwest of Kütahya province, is 70,630 people. Mining activities in the settlement has brought State Railways of the Republic of Turkey (TCDDY) investment to the region. The train line passing through the study area serves on the Ankara – Eskişehir – Kütahya – Tavşanlı – Balıkesir – Soma – Manisa - İzmir route. In addition, Zafer Airport in Kütahya is a regional airport and serves also the district of Tavşanlı. On the other hand, the airport in Afyonkarahisar serves also the district of Tavşanlı that is Turkey's largest military airport. After these investments, station neighbourhood that had established in the flood and liquefaction area of the Orhaneli stream which has passed through the southern threshold of the city caused illegal settlements. Later, its municipality made an infrastructure investment through the development plan made by Bank of Provinces in this region where ground problems were experienced. In addition, the studies carried out by the Building Cooperatives in the city since 1980 have directed the public towards reinforced concrete structures. After this date, the construction of squatter housing was prevented. Therefore, the case study area has developed on the east - west axis along the river, highway and railway line.

Tavşanlı city settlement is the most developed district after the central district in Kütahya. However, the settlement received immigration from various points of the country, depending on the geological location of the city during its historical development. This situation caused 20% of the local population to consist of non-Muslims of Greek and Armenian origin. For this reason, there is a diversity of social life in the settlement, and it is seen that people from the same region, who have the same traditions, prefer to live together in the same neighborhood. In this context, Yeni Doğan Street, located in the Subaşı neighborhood, is called by the locals as the "Romanian Quarter" due to the cultural structure it contains. In the district of Tavşanlı, the local people of the neighborhood come together under the name of "days of togetherness" to develop their neighborhoods, to open social life areas and to protect their values.

With the development of Ömerbey neighborhood in the west, Çukurköy neighborhood in the east, Dedeler and Beyköy neighborhoods in the north and Çardaklı neighborhood in the south, the city shows a tendency to fringe independent from the main settlement.



Figure 4.8: Tavşanlı (Risky Ground Conditions)

The case study area in Tavşanlı is shown in the figure above.

4.3.3 İstanbul

Esenler

Esenler district has a total area of 1850 hectares (ha.) including 700 hectares of Residential Area, 90 hectares of University (YTU) 100 hectares of industry (Tekstilkent/Giyimkent) 160 hectares of highway and its connections and 800 hectares of military field. Approximately 500,000 people live in the district. The density of the population in question is approximately 700 persons/ha. This density causes 63% of the buildings in the settlement to be unhealthy. Therefore, in Esenler, which is located in the middle of the important transportation axes of the Istanbul, the negative consequences (loss of life and property) that will be experienced after the possible major Istanbul earthquake will affect all of Istanbul.

In this context, the case study area Atış Alanı, which has the same characteristics as Esenler district in general (an unhealthy residential texture in the flat ownership regime) also has gone urban transformation within the scope of Law Numbered As 6306.

In addition, military areas in Esenler district; during the development process of the city in the form of an oil stain, it became a physical barrier for structuring within the built texture and in the present situation, it has acquired a natural threshold - like function as large open spaces where the city can breathe. Military areas which are taken out of the district borders within the scope of the program of the Ministry of National Defense have been declared as a reserved area in order to eliminate the density and to eliminate the missing social and technical infrastructure of the district. This project will eventually have an impact on the district. Emlak Konut Atış Alanı project, which is the case study area, will be one of these areas.



Figure 4.9: South Reserve Area

The reserve area and case study area in Esenler is shown in the figures.



Figure 4.10: Atış Alanı (Parcel-Based Flat Ownership Regime)

Bağcılar

There are important commercial units in the district such as İstoç trade center, Auto Center and İkitelli Organized Industrial Zone. In addition, banking and finance units and important press centers like Demirören are also in this district.

Due to the favorable land prices and working places mentioned above it has become urbanized very rapidly during the years of migration from rural to urban. This urbanization has created the densest texture of Istanbul that lacks social and technical infrastructure. Therefore, in Bağcılar like Esenler, the negative consequences of the possible major Istanbul earthquake will affect all of Istanbul.

The 26-block Albayrak site, which was built in 1986 by the Kirazlı Building Cooperative, is one of the rare block-based housing developments that could find a place in this unhealthy texture together with THY sites. The area in question has undergone an urban transformation within the scope of Law Numbered As 6306 due to the condition of housing.

The case study area in Bağcılar is shown in the figure below.



Figure 4.11: Albayrak (Block-Based Mass Housing)

4.4 Analysis of Case Study Areas

In this part of the thesis, spatial and verbal analysis will be made in the light of in-depth interviews and available data with the criteria determined within the framework of literature review of the areas that have been selected and introduced above. The general evaluation of these qualitative and quantitative analyzes will be made in the next section called “Overview”.

4.4.1 Quantitative Analysis

According to the literature review inferences quantitative analysis are conducted under three main headings as mentioned above. These headings are as follows:

Risky Areas Due To The

- Illegal Housing (Çin Çin, Altıkaraağaç)
- Conditions of Housing Texture of
 - Mass or i.e. Block Based Housing (Albayrak, Türk İş)

Risky Areas Due To The

- Illegal Housing (Çin Çin, Altıkaraağaç)
- Conditions of Housing Texture of
 - Mass or i.e. Block Based Housing (Albayrak, Türk İş)
 - Flat Ownership Regime or i.e. Parcel Based Housing (Demetevler, Atış Alanı)
- Conditions of Ground (Hatip River, Tavşanlı Gar)

Within the scope of these analyzes, it has been assumed that the structural risks have been eliminated within the scope of the current earthquake regulation due to the lack of detailed technical analysis, information and permits. However, the analysis of structural risks was made for every field as per the legislation of the law and could not be reached these analysis except for Demetevler since they are kept confidential.

In this context, with certain assumptions, these analyzes were passed superficially and focused on the examination of the planning criteria, which is the main objective of the study.

These assumptions about structural quality analysis are as follows:

- Illegal areas did not receive engineering assistance. These areas were built with the masonry technique. Therefore, all structural problems and negativity parameters are encountered in the fields.
- In areas dominated by the condominium regime, there are structural negativity parameters such as heavy overhead and structural design irregularity.
- Since mass housing areas were built by cooperatives, they received engineering assistance. Therefore, there are no structural problems in these areas.
- Structural problems arising from non-residential reasons such as weak floors in areas with commercial activities and short column effect in areas with slopes are seen.

On the other hand, the ages of the buildings in the study areas and the building materials were determined on the basis of literature reviews of similar areas, field observations and verbal statements from relevant institutions.

Moreover, relevant necessary documents mentioned in this chapter but not shown visually are given as possible as in the Appendices: Documents of Case Study Areas with the Permission to Share.

4.4.1.1 Risky Areas Due to The Illegal Housing

The focus of chapter illegal housing is Mamak and Altındağ districts of Ankara for the reasons stated in the relevant section above.

In this context, Çin Çin and Altıkaraağaç urban transformation implementations were examined.

Çin Çin

The position of the region according to the important points of immediate environment is given in the map below.



Figure 4.12: Location of the Case Study Area (Çin Çin)

Disaster Risk

While examining the disaster risk sectors, the prevailing features of the region (slope, peak ground acceleration [pga] and geological structure) were first examined.

In this context, when the geomorphology of the region is examined; It has seen that the area is in the past erosion field of the Hatip stream. This past erosion field is passing through the Cebeci cemetery adjacent to the case study area. Therefore, the overall slope varies between 0 and 10%. The only exception to this slope is Yenidoğan hill. The slope of hill varies between 10 and 20%. On the other hand when we look at the ground structure, the study area consists of 3 main formations. The western part of the area overlooking Hıdırlık Hill consists of limestone, Yenidoğan hill which is made of mud stone and the flat areas covering it are made of sand stone. Therefore, in the assessment of the suitability of these areas for settlement, the sections facing Hıdırlık Hill is evaluated as Suitable Area 2 (rock environments) Yenidoğan Hill as Precautionary Area 2.1 (areas with stability problems that can be taken precautions) and flat areas as Precautionary Area 5.1 (areas with settling problems that can be taken precautions). However, there is no risk of liquefaction in this evaluation.

When the seismicity of study area is examined, the 475 - year peak ground acceleration is 0.153 gal.

There is no clear data on the age of the buildings because the settlement has been illegally built. However, it is known that from the relevant literature belong to the area as mentioned above, the ages of the buildings vary between 84 and 56.

According to the assumptions explained at the beginning of the chapter, these structures are not legal and they did not receive the necessary engineering assistance. And, it was completely made with masonry technique. As a result, it created a disaster risk by causing many structural problems in almost all of the structures in the area such as such as heavy overhead and irregularity of negatvity parameters.

The area is completely residential and as mentioned above there is no high slope. Therefore, risks arising from non - residential sources and activities such as short column were not encountered.

Today, the area consists of new structures built with reinforced concrete technique according to the e.q. regulations of era. Therefore, it is assumed that structural problems such as heavy overhead, irregularity, short column and weak floor are not encountered that carry the risk of disaster.

Planning Criteria

The study area was illegally built as squatter texture and today it has undergone urban transformation with the Law Numbered 6306 through TOKI.

According to the plan explanation report of the area is planned as a medium density development area where urban transformation will be made in the upper scale plan for 1/25000.

Before 1928, there was a lime quarry (the western slope of the area overlooking the Hıdırlık hill) due to the ground structure. For the area where there is a risk of rockfall, the relevant ministry has taken a decision of Region Exposed to Disaster in 1986. A new rock fall occurred on 01.12.2012 and the area exposed to the rockfall was evacuated. After this disaster, the urban transformation process was accelerated and with the Law Numbered 6306, the area was declared as Disaster Risky Area in 2013.

The mentioned area was within the scope of historical Altındağ stage “three” and its immediate surroundings development plan. In this plan, the study area is reserved for residential use. Contrary to the existing structure of the area, it was planned as a split order with construction area coefficient 1.50 and floor height 18.50 meter. However, this plan was changed after the area was declared a risky area.

In the plan explanation report, the justification is explained as follows:

“When the architectural implementations prepared in accordance with the development plan of the stage three is examined; it has been observed that building solutions, prepared according to the building height of 18.50 meters (6 floors) with coefficient 2, are very close to each other and the construction coefficient is not fully used which causes not enough housing to be produced for all right owners. Moreover, there is not enough space left for green open space arrangement. In this context, the plan of area in question was revised and the building height was determined as 12 floors (36.50 meters) with 2 coefficients.”

The urban transportation process has also been done in 3 stage. The first two stage planned by TOKI and the final stage by a contractor. In the first stage 24 block (12 floors with four apartments in) constructed. In the second stage 18 block is planned where 600 gecekondur were demolished.

On the other hand, in the final stage, only 5 blocks are planned where 880 gecekondur were demolished. This indicator demonstrates that the constructor's net share of entity profit 1.7 times more than TOKI in the same project for almost half and flat area.

However, in the past construction, the building height was 1 floor with changing building height and the coefficient was %81. This ratio is illegally and naturally built in the area and that's why most of the buildings did not have necessary development services like road and infrastructure.

After all, 6768 people (with an assumption of 3 householders which was 2.25) with 650 p/ha (very high density > 601 p/ha) density is planned in the area where 3864 people with 230 p/ha (medium density: 300–150 p/ha) density lived in before the transformation.

The area with this density needs standart urban infrastructure such as green-blue open space, administrative area, education area and health area.

In this context, 22.96% of the region has been expropriated within the scope of state partnership share except the areas belong the transportation infrastructure. This ratio was only 6.1% before transformation and it was all belonged to education and it was all belonged to education and especially religion facilities as almost whole Turkish cities.

Information on the standard urban infrastructure areas of the region before and after the transformation is given in the table below according to the Annex 2 of the Spatial Plans Construction Regulation of General Directorate of Spatial Planning.

Table 4.4: Standart Urban Infrastructure of the Transformation Area (Çin Çin)

Urban Infrastructure (m ² /p)	Standart	Before	After
Health*	1,5	-	-
Education	6.5	2.075	1.1
Administration	1	-	2.3
Blue-Green Open Space	10	--	3.3

*The area is just adjacent to old city hospital

Before the transformation, the road structure of the region developed naturally. However, with the interventions made, the transportation structure and subsequent technical infrastructure of the area were also changed. In this context, roads and technical infrastructure areas, that cover 12.75 % of the total area which was 2.55 ha (6.6 m²/p) before transformation, cover 26% of the area (7.7 m²/p) today. With all these regulations, the ownership structure of the area has also been completely changed. In this context, before the urban transformation, average 140 square meter 1200 pieces of parcels (5600 square meters 30 blocks) were rearranged as an average of 2080 square meters 50 parcels (1.04 hectares 10 blocks).

Agreement Model

Since the settlement is a crime ghetto, right holders were prevented from staying in the area as much as possible.

Therefore, the rights of these people involved in crime are expropriated by the state. These people mostly moved to Saraycık district of Sincan and Hüseyingazi, Şafaktepe and Demirlibağçe districts of Mamak. The remaining 481 (34% of the total dwellers) people were granted right ownership in the field. The rights of those who do not use their rights have been also expropriated by TOKI. However, the cost of the new normal (especially explained in the Altıkaraağaç section) determined by TOKI that increasing each year by the Consumer Price Index in the area was unaffordable to the local population. Therefore, local people transfer their rights to banks and real estate offices and this transfer sales of the rights in the field still continues from ceiling prices of market value range of the relevant lands. In this context the necessary information has been obtained from the authorized Ministry, relevant municipalities (old and current plan and implementations), mukhtarships - health clinics (past and present records) official news and announcements. On the other hand, TOKI refused to give necessary information. Data remain inaccessible were later obtained by field analysis as well as possible.

Altıkaraağaç

The position of the region according to the important points of immediate environment is given in the map below.



Figure 4.13: Location of the Case Study Area (Altıkaraağaç)

Disaster Risk

While examining the disaster risk sectors, the prevailing features of the region (slope, geological structure and peak ground acceleration) were first examined. In this context, when the morphology of the region is examined; it has been seen that the area is on one of the valley slopes overlooking the Hatip stream. Therefore, the overall slope varies between 10 and 30%. When we look at the ground structure, the study area consists of a monolithic formation that is Mamak agglomerate tuff andesite. Therefore, the area which is built on a solid but sloping ground evaluated as Precautionary Area 2.1 (areas with stability problems that can be taken precautions). Because of that ground structure of the area, there is no risk of liquefaction in this evaluation.

When the seismicity of study area is examined, the 475-year peak ground acceleration is 0.154 gal.

There is no clear data on the age of the buildings because the settlement has been illegally built. Although the construction of the area started with sporadic structures (after the construction of the tram line in 1929), it accelerated after the great flood in 1957. After this flood, squatter remaining in the flood field of the Hatip stream spread to the slopes of the valley. Therefore the ages of the most buildings vary between 56 and 28 like most of the east Ankara region.

According to the assumptions explained at the beginning of the chapter, since these structures are not legal, they did not receive the necessary engineering assistance. Again, this area was completely made with masonry technique. As a result, it created a disaster risk by causing many structural problems in almost all of the buildings such as heavy overhead and irregularity of negativity parameters. On the other hand, the area was completely residential but as mentioned above there is high slope. Therefore, risks such as short column and weak floor arising from non - residential sources also observed.

Today, it is assumed that the area consists of new structures built with reinforced concrete technique according to the recent earthquake coding.

Therefore, structural problems such as heavy overhead, irregularity, short column and weak floor are not encountered that carry the risk of disaster.

Planning Criteria

The study area was illegally built as squatter texture and today it has undergone urban transformation with the Law Numbered 6306 through TOKI. The area is planned as a medium density development area where urban transformation will be made in the upper scale plan as most of the Mamak district. The mentioned area was within the scope of Mamak squatter housing rehabilitation development plan. In this plan, the study area is reserved for residential use and planned with 4 floors (12.50 meters) in accordance with the zoned area of Mamak. The coding of the area was made in accordance with the zoned areas of Ankara (in other words 3 meters from the sides and 5 meters from the front and back sides of the relevant parcel). However, this plan could not be implemented in the Altıkaraağaç district and the plan for the district was revised again with the Law Numbered as 6306. With this plan the coefficient has been decided as 1.70 maximum height of 45.50 meters (15 floor). Evenmore, the number of floors has been increased by using the advantage of slope (elevation difference) in a way that is not against the law. This situation has also increased the building height, density, local population and necessary infrastructure. On the other hand, in the past construction, the housing was only 1 floor with changing height and the coefficient was %88. In this context, 16000 people (planned population) with 320 p/ha high density is placed in the area where 4488 people in 75 p/ha low density lived before the transformation. The area with this density needs standard urban infrastructure such as green-blue open space, administrative area, education area and health area. In this context, 19,05% of the region has been expropriated within the scope of state partnership share. This ratio was 3.7% before transformation. Information about the standard urban infrastructure areas of the region before and after the transformation is given in the table below.

Table 4.5: Standart Urban Infrastructure of the Transformation Area (Altıkaraağaç)

Urban Infrastructure (m ² /p)	Standart	Before	After
Education	6.5	5.55	1.98
Administration	1	0.44	2.15
Blue-Green Open Space	10	-	4.2

Before the transformation, the road structure of the region developed accordingly. However, with the interventions made, the transportation structure and subsequent technical infrastructure of the area were also changed. In this context, roads and technical infrastructure areas, which covered 8.2% of the total area that was 5.7 ha (12.75 m²/p) before transformation, cover 8.8 % of the area (3.7 m²/p) today. With these regulations, the ownership structure of the area has also been completely changed. In this context, before the transformation, average 211 square meter 2971 parcels (14925 square meters 42 blocks) were rearranged as an average of 6390 square meters 98 pieces of parcels (1.4 hectares 43 blocks).

Agreement Model

In the area in question, the transformation was done on site in four stages. In this context, 386 out of 869 first stage houses, 464 out of 1186 second stage houses, 380 out of 948 third stage houses and 266 out of 877 fourth stage houses (only forty percent of all) were given to the right holder beneficiaries. However, even most of these right holders also started to leave the field by transferring their rights by selling it.

These sales are taking place for three reasons:

- Non-payment ability of dues and bank debts in the newly formed environment.¹
- Rental assistance which does not cover neither total rebuilding process nor rent.²
- The sale revenue that generated during the transfer of right.^{3*}

**Since the sales are carried out by the transfer of bank debt to TOKI without supervision in the free market (there is also a right transfer fee) it is not possible to control. Therefore numerical data also could not be accessed.*

According to the data of 2021, the average cost of the aforementioned houses built by TOKI to local people is as follows: on average, a down payment (right transfer fee) corresponding to the total of two and a half years minimum wage and a monthly (average 8 years, 96 months) payment plan corresponding to almost half of a minimum wage. Therefore, transfer sales of that rights in the still continues

4.4.1.2 Risky Areas Due to The Conditions of Housing

In this part of the chapter third (parcel-based comdinium regime) and forth (block-based mass housing) texture type of property relations in Turkish cities will be examined in two seperate section in terms of their housing conditions.

4.4.1.2.1 Block-Based Mass Housing

Albayrak

The position of the region according to the important points of immediate environment is given in the map below.



Figure 4.14: Location of the Case Study Area (Albayrak)

Disaster Risk

While examining the disaster risk sectors, the prevailing features of the region (slope, geological structure and peak ground acceleration) were first examined as always. In this context, when the morphology of the region is examined; it has been seen that the area has chosen a place in a flat area as most of the Bağcılar. Therefore, the overall slope varies between 0 and 10%. When we look at the ground structure, the study area consists of a monolithic formation that is hard clay starting from 6.5 meters. Therefore, the area which is built on a flat hard clay ground is evaluated as Precautionary Area 3.2. (appropriate areas, provided that the structure foundations are (appropriate areas, provided that the structure foundations are examined and technical interventions in the ground survey work that must be done before new applications, and applications must be done accordingly).

Moreover, there is no risk of liquefaction in this evaluation.

When the seismicity of the study area is examined, the 475-year peak ground acceleration is 0.394 gal!

According to the assumptions explained at the beginning of the chapter, as all the buildings built by structure cooperative, the age of the buildings were 30 years (the site is demolished in 2016). The area is completely residential and as mentioned there is no high slope and all the building had been received necessary engineering assistance provided by the cooperative. Therefore, structural problems such as short column and weak floor and negativity parameters like heavy overhead and irregularity does not encountered. The area also built with reinforced concrete area technique, like it was, according to the recent earthquake coding. Therefore, structural problems will not encountered that carry the risk of disaster.

Planning Criteria

The study area was built as a block - based mass housing area in 1986. After 30 years today this texture has been undergone urban transformation with the Law Numbered 6306. This area is planned as a high density (300–600 p/ha) development area where urban transformation will be made in the upper scale plan as of most of the Bağcılar district.

According to implementation plan, the study area is reserved for block based residential use which is planned for maximum height 21.50 meters (7 floors) with a coefficient of 0.30/2.10. With these features the coding of the area was made in complete contradiction from Bağcılar in general. In other words, in the process of transformation of illegal structures the parcel-based flat ownership regime was abandoned and block-based mass housing scheme was preferred. In this scheme, parking lots and open areas are considered in its' self terms. In 2014 this plan is revised with the Law Numbered as 6306.

According to that plan the area is planned with 0.50 to 2.80 coefficient for maximum height of 22.50 meters (7 floors). However, it revised in the same year as 0.30 to 3.90 coefficient maximum height of 13 floors + ground floor. This coefficient was increased 3 floors using the elevation difference with the help of plan notes. Although it was planned as 1200 flats, the construction was completed as 1600 flats.

Therefore, 6400 people with 2130 density is placed in the area where 2866 people in 955 density (very high density: > 601 p/ha) lived before the transformation.

The area with this density needs standard urban infrastructure such as green-blue open space, administrative area, education area and health area. But since the area is a mass housing area of 3 hectares, it meets these needs from its immediate surroundings as it was before the urban transformation. In this context, there are 1 kinder garden, 4 primary school, 4 high school, 2 parks, 1 health center and 1 mosque within a walking distance of 1 kilometer. As a change in the block/parcel, instead of 26 buildings with 7 flat, 23 building with 17 flats were built. In this context, roads and technical infrastructure areas did not changed at all.

Agreement Model

There are 728 beneficiaries of the Albayrak site, which was declared as a Disaster Risky area in 2013. Negotiations were made by the Bağcılar municipality and KIPTAS with these right holders in 2014, and contracts were signed with most of the local people for new structures with similar features in the same location in return for a cash payment of fifty - five thousand liras as a transformation construction cost until 2015 when implementation plan were approved.

Türk - İş

The position of the region according to the important points of immediate environment is given in the map below.



Figure 4.15: Location of the Case Study Area (Türk - İş)

Disaster Risk

While examining the disaster risk sectors, the prevailing features of the region (slope, geological structure and peak ground acceleration) were first examined as always. In this context, when the morphology of the region is examined; it has seen that the area has chosen a place in a flat area such as Altınpark where it is adjacent. Therefore, the overall slope varies between 0 and 10%. When we look at the ground structure, the study area consist of a monolithic formation that is terrestrial debris. Therefore, the area which is built on a flat soft ground evaluated as Precautionary Area 5.1 (areas with settling problems that can be taken precautions). Moreover, there is no risk of liquefaction in this evaluation.

When the seismicity of study area is examined, the 475-year peak ground acceleration is 0.153 gal.

According to the assumptions explained at the beginning of the chapter, as all the buildings built by Türk-İş organizations' structure cooperative, the age of the buildings changing between 49 and 53 years. The area is completely residential and as mentioned there is no high slope and all the buildings had been received necessary engineering assistance provided by the cooperative.

Therefore, structural problems such as short column and weak floor and negativity parameters like negativity parameters like heavy overhead and irregularity does not encountered. The area will built with reinforced concrete technique, like it was, according to the recent earthquake coding. Therefore, structural problems would not be encountered that carry the risk of disaster.

Planning Criteria

The study area was built as a block - based mass housing area by Türk - İş between the years 1968 - 1972. Today this urban pattern has been undergone urban transformation with the Law Numbered 6306. This area is also planned as a medium density (150–300 p/ha) development area where urban transformation will be made in the upper scale plan as of Altındağ Çin Çin.

Türk – İş blocks were opened for development as an additional development plan in 1967 together with the golf club that is known as Altın Park today and later, this development pattern or i.e. texture type of property relation became an example for many other construction cooperatives which became dominant after that period of time in 1980's with the proclamation of Mass Housing Funds and TOKI in 1984 as mentioned in the relevant section. According to that plan, the study area is reserved for block based residential use which is planned for maximum height 15.50 meters (5 floors) with a coefficient of 1.50/0.30. With these features the coding of the area was made in complete contradiction from zoned areas of Ankara (3 meters from the sides and 5 m from the front and back sides of the relevant parcel). In other words, the parcel-based flat ownership regime was abandoned and block-based mass housing scheme was preferred with a open space immediately beside the adjacent.

Today this plan is revised with the Law Numbered as 6306. According to that plan the area is planned with 2 coefficient maximum height of 18.50 meters (6 floors). However, it revised in the same year as maximum height of 45.50 (15 floors) 4 times of today's construction right while preserving most of the current block or parcel boundaries.

Therefore, 23094 people with 707 p/ha very high density is placed in the area where 10264 people in 314 p/ha high density lived before the transformation. The area with this density needs standard urban infrastructure such as green-blue open space, administrative area, education area and health area. In this context, 7.5 % of the region has been expropriated within the scope of state partnership share. This ratio was 5,7 % before transformation.

Information on the standard urban infrastructure areas of the region before and after the transformation is given in the table below.

Table 4.6: Standart Urban Infrastructure of the Transformation Area (Türk - İş)

Urban Infrastructure m ² /p)	Standart	Before	After
Education	6.5	11.17	4.9
Administration	1	0.09	0.38
Blue-Green Open Space	10	-	0.06

With the interventions made in the plan change, the transportation structure and subsequent technical infrastructure of the area have not been interefered even though the density were increased with the population. Only minor regulations have been made. In this context, roads and technical infrastructure areas, which cover 14,2 % of the area (4.5 m²/p) before transformation, cover 11,9 % of the area (1.6 m²/p) today. After the regulations, the ownership structure of the area has also been completely changed. In this context, before the transformation, average 1.7 hectares 15 parcels (3.3 hectares 8 blocks) were rearranged as an average of 22015 square meters 12 pieces of parcels (52960 square meters 5 blocks).

Agreement Model

Urban transformaion in the area is planned in stages. Because, due to the objections in the first total project approval, 4 year of standstill period was experienced. Therefore, agreements with local people have being done in stages by the relevant municipality.

In that context, one-to-one agreements were made with the right holders in the field. That's why, sales in this area continue from the average price range in the capital market unlike the other areas. This is because it is known that reconstruction has started yet and costs will increase logarithmically. In this conjuncture, negotiations will be held with 2572 beneficiaries in 8 stages in total. With the first of these stages, an agreement was reached and the demolition had began but urban design process according to the agreements and plans of the region continues.

4.4.1.2.2 Parcel-Based Flat Ownership Regime

Atış Alanı

The position of the region according to the important points of immediate environment is given in the map above.



Figure 4.16: Location of the Case Study Area (Atış Alanı)

Disaster Risk

While examining the disaster risk sectors, the prevailing features of the region (slope, geological structure and peak ground acceleration) were first examined as always. In this context, when the morphology of the region is examined; it has been seen that the area has chosen a place on a gently sloping area as of most of the Havaalanı neighbourhood. Therefore, the overall slope varies between 0 and 20% which allowed the construction area to be legally increased by using the level difference in the area. When we look at the ground structure, the study area consists of a monolithic formation that is terrestrial debris from the Miocene era.

Therefore, the area is evaluated as Precautionary Area 2.1. (areas with stability problems that can be taken precautions). Moreover, there is no risk of liquefaction in this evaluation.

When the seismicity of the study area is examined, the 475-year peak ground acceleration is 0.363 gal!

According to the assumptions explained at the beginning of the chapter, the age of the buildings concentrates between 35 - 15 years (the site is demolished in 2016). The area was completely residential but there were sub – residential commercial areas. Moreover as mentioned there is a slightly high slope (10-20%). Therefore, structural problems such as short column and weak floor and negativity parameters like heavy overhead and irregularity have been seen where earthquake is a real danger that creates disaster risk. Today the area is built with reinforced concrete technique, like it was, according to the recent earthquake coding. Therefore, structural problems are not encountered that carry the risk of disaster.

Planning Criteria

The study area was started to be built in 1980's which was accelerated right after 1999 East Marmara earthquakes. After 35 years today, this texture has been undergone urban transformation with the Law Numbered 6306.

This area is planned as a high density (300–600 p/ha) development area where urban transformation will be made in the upper scale plan as of most of the Esenler district.

According to implementation plan, the study area is planned for adjacent residential use while abandoning the split order for 4 floors. This development permit has also paved the way for a 40 percent coefficient within the framework of the development legislation. However uncontrolled and unsupervised housing development was realized at the rate of 60 percent which was reached 240 percent of construction area eventually which was legalized with the last regulations in the development rules. In 2012 this plan is revised with the Law Numbered as 6306.

According to that the area is planned as a block-based mass housing contrary to the current regime. Unlike all other study areas, the construction conditions (coefficient) in the aforementioned area were determined by an urban design project which create 2373 flat of 386 floor with a maximum height of 75 meters (24 floor). Moreover, this project created a 25 percent of coefficient that reached 600 percent of construction area at the end of the day.

In the study area where 4209 people lived before the urban transformation, demographical and therefore economical, technical, social and spatial planning was made for 6149 people after the transformation. Therefore, in an area of 5,5 hectares, the density, which was 840 p/ha before the urban transformation, had increased by 33 percent after the transformation and realized at the level of very high dense housing development ($1110 \text{ p/ha} > 601 \text{ p/ha}$).

The area with this density needs standard urban infrastructure such as green-blue open space, administrative area, education area and health area. But since the area is planned as mass housing area of 5.5 hectares in a single parcel of a block where it meets these needs from its immediate surroundings.

Before urban transformation the area met these needs from its immediate surroundings. Because the transformation had been done in an area (disaster risky which is completely devoid of social facilities.

In this context, there are 1 kinder garden, 2 primary school, 1 high school, 2 parks, 1 cemetery, 1 stadium and 1 mosque within a walking distance of 1 kilometer.

With the interventions made, the transportation structure and subsequent technical infrastructure of the area were also changed.

In this context, roads and technical infrastructure areas, which cover 40% of the area (49 m²/p) before transformation, cover 10% of the area (9 m²/p) today. Because the area that was designed as islands (15 blocks, 30 parcels) in the flat ownership regime has transformed in to a single block/parcel that receives service only from its surroundings.

Agreement Model

According to the official statement made by the public company Emlak Konut GYO, the contractor of the Project, the total valuation of the Project has reached 185 million dollars. 970 of the 2373 residences created in this project were produced for the financing of the for-profit project. The remaining 1403 residences were given to the right holder beneficiaries, as in other implementations, by equivalent lot.

In addition, these houses are physically separated from the others constructed for financing the Project with 55 commercial units produced for sub-residential activities in the past.

Right holders were included in the process by being indebted again. Accordingly, the payment terms will be paid in 10% discount, as 15% in the first year, 15% in the last year (12. year) and 50% in 10 years with 1% (or CPI increase [optional]) interest.

Eventually, a large part of the right holders in the field have received dividends and transferred their rights by selling them. The contractor company stated that some of these sales were made to aimed foreigners who wanted to obtain citizenship right because of their value of 2 million and more.

Demetevler



Figure 4.17: Location of the Case Study Area (Demetevler)

The position of the region according to the important points of immediate environment is given in the map above.

Disaster Risk

While examining the disaster risk sectors, the prevailing features of the region (slope, geological structure and peak ground acceleration) were first examined. In this context, when the morphology of the region is examined; it has seen the area was established on the alluvial field of the Ankara Stream. Therefore, the overall slope varies between 0 and 10%. When we look at the ground structure, the study area consist of a monolithic formation that is pliocene lacustrine sediments. Therefore, the area which is built on a soft and silt - clay layered ground in a flat area evaluated as Precautionary Area 5.1 (areas with settling problems that can be taken precautions). However, there is no risk of liquefaction in this evaluation.

When the seismicity of study area is examined, the 475-year peak ground acceleration is 0.149 gal.

There is clear data on the age of the buildings because the settlement has been evaluated by Ministry of Environment, Urbanization and Climate Change and verbal permission was obtained to access these numerical data. According to the numerical data from contractor planning office GEDAŞ, which is sub contractor of TOKI, the ages of the structures (1536 building) in the region vary between 15 and 40. The vast majority (56%) of these structures' age range from 21 to 30. The ratio of structures between 31 and 40 years old is 26.50%. On the other hand, while the number of the buildings over 40 years of 16, the number of buildings constructed in accordance with the 2007 earthquake regulations is only 25. Although all the buildings in the area are reinforced concrete, there are many structural problems such as short column, weak floor and negativity problems of heavy overhead and irregularity arising from non-residential sources. On the other hand, 10% of the buildings in the area are against the licence and 22% are illegally built. This situation also causes the problems mentioned above.

According to the standart technical analysis made by the Ministry, 35% of the buildings in the area have short column, 77% have weak (soft) floors, 4% have heavy overhead and 9% have irregularities.

Planning Criteria

The study area will undergo urban transformation with the Law Numbered 6306 through Ministry. The area is planned as a medium density development area where urban transformation will be made in the upper scale plan as of most of the residential areas of Ankara.

The study area is reserved for mixed use that contain commercial housing, residential, technical infrustructure, education, health, administration, religious and sports areas and green open spaces. The average construction area is 425% in aforementioned area where coefficient reaches even 100% and construction area reaches even 800% in some dense places. Within this density, only 24% of the buildings has adjacent structure order.

The maximum floor height in the area is determined as 18 floors (55.5 meters). However, the number of floors of the buildings in the area is concentrated between 6-11 as 45% 8, 13% 6, 12% 7, 10% 9, 6% 10 and 5% 11 floors. Only 32 of the total buildings in the area have 1-2 floors and only 3 of them are 16 floor and above until 18. Therefore, the current density in the 162 hectares area has reached 750 p/ha (very high density >601p/ha).

On the other hand, when the proposed plan is examined, it has been seen that the density in the area has been reduced to 430 p/ha (600p/ha > medium density > 300) but the proposed population has been increased to 90 thousand people from 75 thousand.

The biggest contributor to this sparseness is the acquisition of the adjacent (National Intelligence Organization) lodgings. This area is bought for 385 million Turkish Liras.

In the proposed urban design project, the coefficient in the area is planned as 0.25 and the construction area as 250%. Therefore, the average floor height in the area is set as 10 floors.

However, the maximum floor height in the area remained as 18 floors (55.5 meters). This design, which was made in a larger area, enabled the production of 35340 units (10340 of which are in the aforementioned 48 hectares MIT land) in the area where there are currently 33435 residential units. However, as a result of this, the square meters of all buildings in the area have been reduced accordingly compared to their current size.

The area with this density needs standard urban infrastructure such as green-blue open space, administrative area, education area and health area. In this context 27% of the region has been expropriated within the scope of state partnership share except the areas belonging to the transportation infrastructure. This ratio was 14% before transformation.

Table 4.7: Standart Urban Infrastructure of the Transformation Area (Demetevler)

Urban Infrastructure (m ² /p)	Standart	Before	After
Health	1.5	0.03	0.475
Education	6.5	0.56	1.05
Administration	1	0.25	1.30
Blue-Green Open Space	10	1.98	3.12

Information about the standard urban infrastructure areas of the region before and after the transformation is given in the table above. With the interventions made, the transportation structure and subsequent technical infrastructure of the area will also be changed. In this context, roads and technical infrastructure areas, which cover 25% of the total area that is 40.52 ha (5.2 m²/p) before transformation, will cover 12% of the area (3 m²/p) today. After these regulations of urban transformation project, the ownership structure of the area has also been completely changed.

In this context, before the transformation, average 775 square meter 1536 parcels (9360 square meters 128 blocks) will rearrange as an average of 3525 square meters 525 pieces of parcels (2.6 hectares 70 blocks).

Agreement Model

There are 33435 “beneficiaries” in the project area. 35340 housing unit will be created for these right holders. However, as the square meters of these residences will be reduced, debiting is envisaged with the square meter unit cost price for the aforementioned residences. Even if it is made on a cost basis by public hands, the square meter cost is determined as 2400 liras.

However, with the calculation that there will be unforeseen costs (increase in the producer price index due to exchange rate of \$/tl and inflation), this cost has been increased (25%) to 3000 tl. Therefore, the cost of a 100 m² house is 300 thousand liras to beneficiaries. This situation will cause the majorit of the local people to use housing mortgage credit.

While those who cannot pay will leave the project area by participating in expropriation, selling or transferring their rights likewise other urban transformation areas.

For this reason, the sale of structures in the region is quite above from these prices (1171-1693 tl/m²) in the capital market. It is thought that these prices will increase considerably with the announcement of the secret urban transformation plan officially. Other beneficiaries from the local people (right holders who make an agreement) will also suffer, even if they will receive rental assistance for a certain period of a time (at most 48 months) due to the 14 years period of the project.

Moreover, while the average unit valuation of the existing houses is made with 1100 tl, it is thought that the houses to be created in the area which will be at least two times more valuable with the valuation of the new houses.

On the other hand, 6402 commercial units with a construction area of 340.844 m² will be increased to 481.985 m², and the spine is created in the area with these units. The unit cost of these commercial areas is calculated as 5000 liras.

4.4.1.3 Risky Areas Due to The Conditions of Ground

Hatip River

The position of the region according to the important points of immediate environment is given in the map below.



Figure 4.18: Location of the Case Study Area (Hatip Stream)

Disaster Risk

While examining the disaster risk sectors, the prevailing features of the region (slope, geological structure and peak ground acceleration) were first examined. In this context, when the morphology of the region is examined; it has seen the area consist of a monolithic formation which is alluvial field of the Hatip Stream. Therefore, the overall slope varies between 0 and 10% and this flat area evaluated as Precautionary Area 1.1 (precautionary areas in terms of liquefaction hazard). So, there is risk of liquefaction. That risk is shown spatially in the section Introduction of the Selected Case Areas.

When the seismicity of study area is examined, the 475-year peak ground acceleration is 0.155 gal.

According to the assumptions explained at the beginning of the chapter; there is no clear data on the age of the buildings because the settlement has been illegally built without records. However, it is known that from the literature the ages of the buildings vary between 30 and 10. Since these structures are not legal, they did not receive the necessary engineering assistance. Therefore, it was completely made with masonry technique as 1 floor buildings.

As a result, it created a disaster risk by causing many structural problems in almost all of the structures such as heavy overhead and irregularity of negativity parameters. The area is completely residential and as mentioned above there is no high slope. Therefore, risks arising from non-residential sources and activities such as short column were not encountered.

Today, the area will be constructed from new structures built with reinforced concrete technique according to the e.q. regulations of era. Therefore, problems such as heavy overhead, irregularity, short column and weak floor will be not encountered that carry the risk of disaster.

Planning Criteria

The study area will under gone urban transformation with the Law Numbered 6306 through metropolitan municipality. According to the official opinion of the relevant institution (DSİ) almost entire of the area was determined as the floodplain of the Hatip Stream; on the other hand, according to the upper scale plan of in the mentioned area: it is planned as medium density (300 p/ha > medium density > 150 p/ha) “residential areas”.

The mentioned area was within the scope of Yeni Mamak Urban Transformation Project I stage 6 development plan. In this plan, the study area is reserved for residential use. Contrary to the existing structure of the area, it was planned as a split order with construction area coefficient 2 and floor height is independent.

The area distribution in that plan was as follows: 36% park, 32% road, 14% housing, 8% TCDDY, 7% industry (marble factory) and the remaining 3% DSİ. Although this was the urban transformation project in the area, the current situation was completely different. In the past construction, building height was 1 floor with changing building height and the coefficient was %41 and parks was only 9% in a liquefacient land.

This ratio is illegally and naturally built in the area and that's why most of the buildings did not have necessary development services like road and infrastructure.

However, aforementioned plan was changed with transfer of the authority in the field to metropolitan municipality from local municipality and the change in management of the municipality after 24 years in the last local elections of March 2019. After this event, the urban transformation approach in the area had shifted to the constructions made by the contractor firm in return for flat ownership. For this purpose, the area is divided into 2 residential islands (excluding the other technical block islands) as the right holders and the contractor's residences are separated. While a coefficient of 2.50 was given to the right owners' residence block, the coefficient on the other block was given 2. This coefficient difference have also caused the residents in the area to change between 80 and 120 square meters.

After all, 1600 people (with an assumption of 3.5 householders which it was) with 225 p/ha (medium density > 150 p/ha) density is planned in the area where 1320 people with 75 p/ha (low density 150-50 p/ha) density lived in before the transformation. It has seen that the density in the area has increased 3 times.

The area with this density needs standard urban infrastructure such as green-blue open space, administrative area, education area and health area. In this context 47.5% of the region has been expropriated within the scope of state partnership share except the areas belong the transportation infrastructure. This ratio was 20% before transformation.

Table 4.8: Standart Urban Infrastructure of the Transformation Area (Hatip Stream)

Urban Infrastructure (m ² /p)	Standart	Before	After
Health	1.5	-	6.89
Education	6.5	-	5.29
Administration	1	-	25.55
Blue-Green Open Space	10	-	50.06

Information about the standard urban infrastructure areas of the region before and after the transformation is given in the table above.

Administrative structures and open areas in the region have been built quite a lot according to the standards. The reason behind this is that the north and the east of the study area is completely reserved for these uses due to the serious flood risk. With the interventions made, the transportation structure and subsequent technical infrastructure of the area will also be changed. In this context, roads and technical infrastructure areas, which cover 32% of the total area that is 14.20 ha (107 m²/p) before transformation, will cover 36% of the area (102 m²/p) today. The reason why the roads areas are so high is that the area receives service from the main roads (30 - meter Mamak Street and 50 - meter Samsun highway) in its' 2 fronts. After these regulations of urban transformation project, the ownership structure of the area has also been completely changed. In this context, before the transformation, average 1 ha. 26 parcels (43300 square meters 6 block) will be rearranged as an average of 23300 square meters 12 pieces of parcels (3.11 hectares 9 blocks).

Agreement Model

“The New Mamak Urban Transformation Project I”, which includes 14 neighbourhoods, started in 2010 on an area of 7 million square meters and was planned in 11 stages. However, with the enactment of Law Numbered 6306 in 2012, the project was included in the scope of this law due to the illegality of fragile building stock and conditions of the ground. In this process, the municipality provides an annual average of 50 million liras rental assistance to the beneficiaries. Therefore, the cost of the urban transformation project to the municipality, with the expropriation, infrastructure investments and other costs, has reached one billion liras. For this reason, the metropolitan municipality signed a contract with the contractor company in return for flat in order to make the transformation in the area faster and cost-effective for every stakeholders.

In the area, 455 buildings as 35 structure blocks will be built. 375 of these 455 buildings which belongs to the sixth stage right holders and the remaining 80 are planned on two separate block islands one belonging to the contractor company.

The contractor company has also been granted the rights of 6 commercial buildings planned on the relevant block and parcel in the area. In this context, the right holders bought a suitable new flat according to the characteristics of the land they own (having a building on it, its location [market value] size and whether it is zoned or not). If these features are not suitable at the end of the day for the new flat, a payment plan of 120 liras for per square meter which is re-evaluated by the ministry every year according to financial conjuncture of era) for 72 months has been issued. Together with these structures, the estimated cost of the project reaches 6 million dollars. On the other hand, the two housing block separated both in terms of right holders (ownership) and physically.

As stated in the relevant section above, the construction areas coefficients are also differentiated. This differentiation also affected the number of floors and the coefficients. Accordingly, number of floors was determined as 4 in the small building block belonging to the contractor company and 5 in the large building block belonging to the right holders, and the coefficient which was 41% before increased up to 50% accordingly.

Tavşanlı Gar



Figure 4.19: Location of the Case Study Area (Tavşanlı)

The position of the region according to the important points of immediate environment is given in the map above.

Disaster Risk

While examining the disaster risk sectors, the prevailing features of the region (slope, geological structure and peak ground acceleration) were first examined. In this context, when the morphology of the region is examined; it has seen the area consist of a monolithic formation which is alluvial field of the Orhaneli Stream that create Greate Tavşanlı Plain. Therefore, the overall slope varies between 0 and 10%, and, the area which is built on a soft sand and gravel layered ground in a flat area evaluated as Precautionary Area 5.1 (areas with settling problems that can be taken precautions). Moreover there is risk of liquefaction. In addition to the mentioned liquefaction areas, the study area is also within the scope of Tavşanlı plain irrigation area. These areas are excluded from the plan.

When the seismicity of study area is examined, the 475-year peak ground acceleration is 0.334 gal.

Due to the destruction of data as a result of a political crisis in the past, a clear data on the age of the buildings does not exist. Although, according to the official observations almost all of the buildings in the area are reinforced concrete.

According to the assumptions explained at the beginning of the chapter; there are many structural problems such as short column, weak floor and negativity problems of heavy overhead and irregularity arising from non-residential sources.

On the other hand, according to information from the contractor planning office, 12% of the buildings in the area are illegally built. This situation also causes the problems mentioned above. Moreover, 35% of the buildings in the area have short column, 54% have weak (soft) floors, 6% have heavy overhead and 5% have irregularities.

Planning Criteria

The study area will undergo urban transformation with the Law Numbered 6306 through Municipality. The upper scale plan of the area has been canceled, so the current upper scale plan in the area is 1/5000 master development plan, and according to this plan, the housing areas in the mentioned area are planned as low density (300 p/ha > low density > 150 p/ha) residential areas. Moreover, according to the official opinion of the relevant (DSİ) institution, edges of the area was determined as the floodplain

The mentioned area was within the scope of Tavşanlı Additional Revision Development Plan project stage 4. In this plan, the study area is reserved for mixed use including residential, commercial and infrastructural use. Parallel to the existing structure of the area, it was planned as a split order. However, the construction area is coefficient 2.40 and floor height is 6. The area distribution in that plan is as follows: 32.50% park, 25% commercial, 17.5% housing, 9% road, 5.5% TCDDY, 5.5% DSİ and the remaining 5% is urban infrastructure. Although this is the urban transformation project in the area, the current situation was different. In the past construction, building height was changing from 3 to 5 floor with changing building height and the coefficient was 1.20 and parks was only 27,50% in a liquefaction area.

Considering other land usage, the area distribution is as follows: 27.50% road, 27.50% park, 20% housing, 11% commercial, 5.5% TCDDY, 5.5% DSİ and the remaining 3% is urban infrastructure. This housing arrangement created a sheltering area for 7620 people with 3048 flats of 762 floor with a maximum height of 16.5 meters (5 floor). This area has been transforming to a sheltering area with 240 percent of coefficient at the end of the day with the project. In the study area, after the urban transformation, demographical and therefore economical, technical, social and spatial planning was made for 15.250 people. Therefore, the density, which was 120 p/ha before the urban transformation, had increased by 220 percent after the transformation and realized at the level of 265 p/ha.

The area with this density needs standard urban infrastructure such as green-blue open space, administrative area, education area and health area. In this context, 48.5% of the region has been expropriated within the scope of state partnership share. This ratio was 41.5 % before transformation.

Information on the standard urban infrastructure areas of the region before and after the transformation is given in the table below.

Table 4.9: Standart Urban Infrastructure of the Transformation Area (Tavşanlı)

Urban Infrastructure (m ² /p)	Standart	Before	After
Health	1.5	0.5	0.25
Education	6.5	5.25	2.75
Administration	1	8.5	6.5
Blue-Green Open Space	10	120	65

With the interventions made in the plan change, the transportation structure and subsequent technical infrastructure of the area have been interefered even though the density were increased with the population. In this context, roads and technical infrastructure areas, which cover 27.50 % of the area (107.50 m²/p) before transformation, cover 9 % of the area (17.50 m²/p) today.

After the regulations, the ownership structure of the area has also been completely changed. In this context, before the transformation, average 0.12 hectares 1740 parcels (0.47 hectares 444 blocks) were rearranged as an average of 11225 square meters 262 pieces of parcel/blocks.

Agreement Model

In the transformation area, the agreements with local people have being done by the relevant municipality. In that context, one-to-one agreements were made with the right holders in the field. That's why, sales in this area continue from the average price range in the capital market unlike the other areas.

This is because it is known that reconstruction has started yet and costs will increase logarithmically. In this conjuncture, negotiations will be held with 3048 beneficiaries in total to create 3812 households.

4.4.2 Qualitative Analysis

After these quantitative analyses which are conducted in the case study areas, qualitative analyzes are detailed in this section.

This thesis used descriptive design of a qualitative research which is used to look over the individual participants for these qualitative analyses. It makes mentions of collection of data and presentation of collected information. Therefore, the main reason for using that form of research is to describe and categorize the problems and offering discussion areas for evaluation during the revision of the law with experts in other words with the stakeholders of that process.

In this context, non - probabilistic and non-random purposeful sampling was used and the maximum variety method was considered. As a qualitative research, in-depth interviews were held with the stakeholders at every possible stage of urban transformation process within the scope of the Law Numbered 6306 in the case study areas.

In addition, these stakeholders are categorized as producers of the urban transformation system of Turkey in 5 layers as international services, public services, practioners, civil society and doctriners. These layers are detailed in the relevant section that is factorarial analysis. An experience requirement has been set for this specialization and it is expected to have 10 years of experience in the relevant field/institution since almost 10 years has past after the date of enactment of the law. The reasons, deficiencies-positive aspects of the process, alternative solutions and finally other expressions what they want to express are discussed with each expert in depth.

Following, these interviews which are conducted with the stakeholders are clarified in the factor analysis section to present more simple and outstanding outcomes.

Finally, results from both quantitative and qualitative research studies were subjected to evaluation to answer research questions and verify the hypotheses which are developed. Together with these studies, results from both quantitative and qualitative research studies later were compared with the inferences reached from theoretical and technical framework (literature review) to identify that whether theoretical and technical discourse overlap or linked with the practical implementations of the Law in the case of Turkey.

4.5 Overview

In this part of the thesis, the spatial (quantitative) analyzes described in detail above will be subjected to a general empirical evaluation. In this context, physical analysis were brought together with a table. On the other hand verbal analyzes were subjected to factorial analysis, and it was aimed to identify problem areas and develop several solution suggestions.

4.5.1 Empirical Evaluation

The physical analyzes detailed above are compiled in this section with a table and it is aimed for the reader to better understand the results.

Aforementioned compilation table is given below.

Table 4.10: General Compilation of Physical Analysis Results

Overview of Spatial Analysis of Areas Transformed Under the Law Numbered 6306 in Turkey			Unit	Illegal Housing				Conditions of the Housing								Conditions of the Ground			
				Squatter Area				Block Based Mass Housing				Parcel Based Flat Ownership Regime				Squatter Area		Parcel Based Flat Ownership Regime	
				Çin Çin		Altıkaraagaç		Albayrak		Türk İş		Atış Alanı		Demetevler		Hatip Stream		Gar	
				Before	After	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After
	Location	-	Ankara, Altındağ		Ankara Mamak		İstanbul, Bağcılar		Ankara, Altındağ		İstanbul, Esenler		Ankara, Yeni Mahalle		Ankara, Mamak		Kütahya, Tavşanlı		
Features of the Ground Risk	Slope	%	0-20		10-30		0-10		0-10		10-20		0-10		0-10		0-10		
	Geological Structure	-	Limestone, Mud stone and Sand stone		Mamak Agglomerate tuff andesite		Hard clay		Terrestrial debris from pliocene era		Terrestrial debris from miyosen era		Lacustrine sediments from pliocene era		Alluvial field of Hatip stream		Alluvial field of Orhaneli stream		
	Suitability for Settlement Area	-	Suitable Area. 2, P.A. 2.1 and Precautionary Area 5.1		P.A. 2.1 (Stability problems)		P.A. 3.2 (Foundation problems)		P.A. 5.1 (Settling problems)		P.A. 2.1		P.A. 5.1		P.A. 1.1 (Liquefacient ground)		P.A. 5.1		
	Peak Ground Acceleration	gal	0.153		0.154		0.394		0.153		0.363		0.149		0.155		0.334		
	Flood Danger	-	-		-		-		-		-		-		Risky		Risky		
	Liquefaction	-	-		-		-		-		-		-		Liquefacient		Liquefacient		
Structure Risk *	Building	Age	#	56-84	Last 2 stage continues	30-56	Continues	30	2	49-53	First stage just started	15-35	2	21-30	At agreement phase	10-30	A contract signed with contractor	-	At agreement phase
		Material Technology	-	Mason	Reinforce Concrete	Masonry	Reinforce concrete	Reinforced concrete		Reinforced concrete		Reinforced concrete		Reinforced concrete		Masonry	Reinforce concrete	Reinforced concrete	
	Negativity Parameter	Heavy Overhead	-	Exist	Not a threat	Exist	Not a threat	Not a threat	Not a threat	Not a threat	Will not be a threat	Exist	Not a threat	Exist	Will not be a threat	Exist	Not a threat	Exist	Will be not a threat
		Irregularity	-	Exist		Exist													
	Non-Residential Source	Short Column	-	Not a threat		Exist													
		Weak Floor	-	Not a threat		Not a threat													

* Within the scope of these analyzes, it has been assumed that the structural risks have been eliminated within the scope of the current earthquake regulation due to the lack of sufficiency for technical analysis, information and permits. However, the analysis of structural risks was made for every field as per the legislation of the law and could not be reached these analysis except for Demetevler since they are kept confidential. In this context, with certain assumptions, these analyzes were passed superficially and focused on the examination of the planning criteria, which is the main objective of the study.

Table 4.10: (continued)

Overview of Spatial Analysis of Areas Transformed Under the Law Numbered 6306 in Turkey			Unit	Illegal Housing				Conditions of the Housing								Conditions of the Ground			
				Squatter Area				Block Based Mass Housing				Parcel Based Flat Ownership Regime				Squatter Area		Parcel Based Flat Ownership Regime	
				Çin Çin		Altıkaraagaç		Albayrak		Türk İş		Atış Alanı		Demetevler		Hatip Stream		Gar	
				Before	After	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After
Planning Criteria	Upper Scale Plan		-	Medium density (150-300 p/ha)		Medium density		High density (300-600 p/ha)		Medium density		High density		Medium density		Medium density		Medium density	
	Development Plan	Construction Area	%	81	200	88	175	210	390	150	200	240	500	425	250	41	200 - 250	120	240
		Coefficient	%	81	16	88	11	30	30	30	13	60	25	It even increases to 100	25	41	50	30	40
		Floor Number	#	1	12	1	15	7	17	5	15	4	24	18	10	1	4 - 5	4	6
		Maximum Height	m	5	36.5	5	45.5	22.5	52.5	15.5	45.5	13.5	75	55.5	31.5	5	16.5	12.5	20
	Urban Design	Structure Number	#	1398	47	1496	125	26	23	257	Cont.	123	19	1536	883	375	35	762	Cont.
	Population		p	3864	6768	4470	16000	2866	6400	10264	23094	4209	6149	75000	90000	1320	1600	7620	15250
	Density		p/ha	230	650	75	320	955	2130	314	707	840	1110	750	430	75	225	120	260
	State Partnership Share		%	6.1	22.96	3.7	19.05	0	0	5,7	7,5	0	0	14	27	20	47.5	41.5	48.5
	Standarts **	Health: 1.5	m²/p	Adjacent to old city hospital		-		-	-	-		-	-	0.03	0.475	-	6.89	0.5	0.25
		Education: 6.5	m²/p	2.075	1.1	5.55	1.98			11.17	4.9			0.56	1.05		5.29	5.25	2.75
		Administrati on: 1	m²/p	-	2.3	0.44	2.15			0.09	0.38			0.25	1.3		25.55	8.5	6.5
		Open Areas: 10	m²/p	-	3.3	-	4.2			-	0.06			1.98	3.12		50.06	120	65
	Transportation		m²/p	6.6	7.7	3.7	12.75	Service roads did not change		4.5	1.6	49	9	5.2	3	107	102	107	17.50
	Block	Number	#	30	10	42	43	1		8	5	15	1	128	70	6	9	444	262
Size		ha.	0.56	1.04	1.4	1.4	3		3.3	5.2	0.36	5.5	0.93	2.6	4.33	3.11	0,47	1.1	
Parcel	Number	#	1200	50	2971	98	1		15	12	330	1	1536	525	26	12	1740	262	
	Size	m²	140	2080	211	6390	30000		1.7	2.2	169	55000	775	3525	10000	23300	1225	11225	
Agremen Model	Right Ownership		peop le	481	1775	1496	2384	728	872	2566	5132	970	1403	33435	1905	375	80	3048	3812
	The New Normal		-	Payment plan with TOKI for 96 months that (half of an minimum wage) that increase with consumer price index				50000 liras cash in 2015		One to one agreement are ongoing		55% in ten years, 15% in the first year 15% in the last year and 15% discount		3000 liras for per m2 of new houses		People will get a suitable house for their right. If features not suitable: 120 tl for per m² payment for 6 years		One to one agreement are ongoing	

** Greens for compliant (solution provider) with the standards and Reds for inconsistently far (quite problematic) from standards of spatial plans building code annex II,

As explained in the relevant section above, physical analyzes were carried out in three sections (disaster risk, planning criteria and agreement model) each refer a section of literature review. Among these sections, Disaster Risk has been divided into two separate sub-sections as Features of the Ground Risk and Structural Risks and has been analyzed in that way. The main reason for this separation is to overlap the citations made in the literature review with physical analyzes, to create multi-layered structure to reach clear/meaningful results.

In this context, the following results were obtained when the study areas were examined in terms of the Disaster Risk. Firstly Features of the Ground Risk:

When the 8 study areas were examined, it was observed that 5 of the mentioned areas were located on flat lands, 2 on flat land with height differences and 1 on sloping land. Altıkaraağaç region, which is the only exception among the study areas, was built after the slums in the Hatip Stream region, that is also one of the study areas, jumped to the sloping areas after the Great Flood of Mamak in 1957. As detailed in the historical development of urbanization of Turkish cities section, the reason why other risky regions are located on flat lands is that provincial settlements in cities are built on stream beds, which are more efficient and easily accessible areas, the main reason for this is that these areas always have soft ground types and have flood risk. It is preferred by the lower segments that make up the majority of the population. With the growth of the cities, these areas, which were on the periphery at the time, remained in the center of the city in other words in valuable regions.

These choices have ensured that the geology of the areas is composed of soft ground types in this context. The geological background of the areas and their features are as follows:

- Suitable Areas 2 (Hard, suitable limestone)
- Precautinary Areas 1.1 (Liquefaction related ground problems)
- Precautinary Areas 2.1 (Stability problems)
- Precautinary Areas 3.2 (Foundation problems)

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- Precautinary Areas 1.1 (Liquefaction related ground problems)
- Precautinary Areas 2.1 (Stability problems)
- Precautinary Areas 3.2 (Foundation problems)
- Precautinary Areas 5.1 (Settling problems)

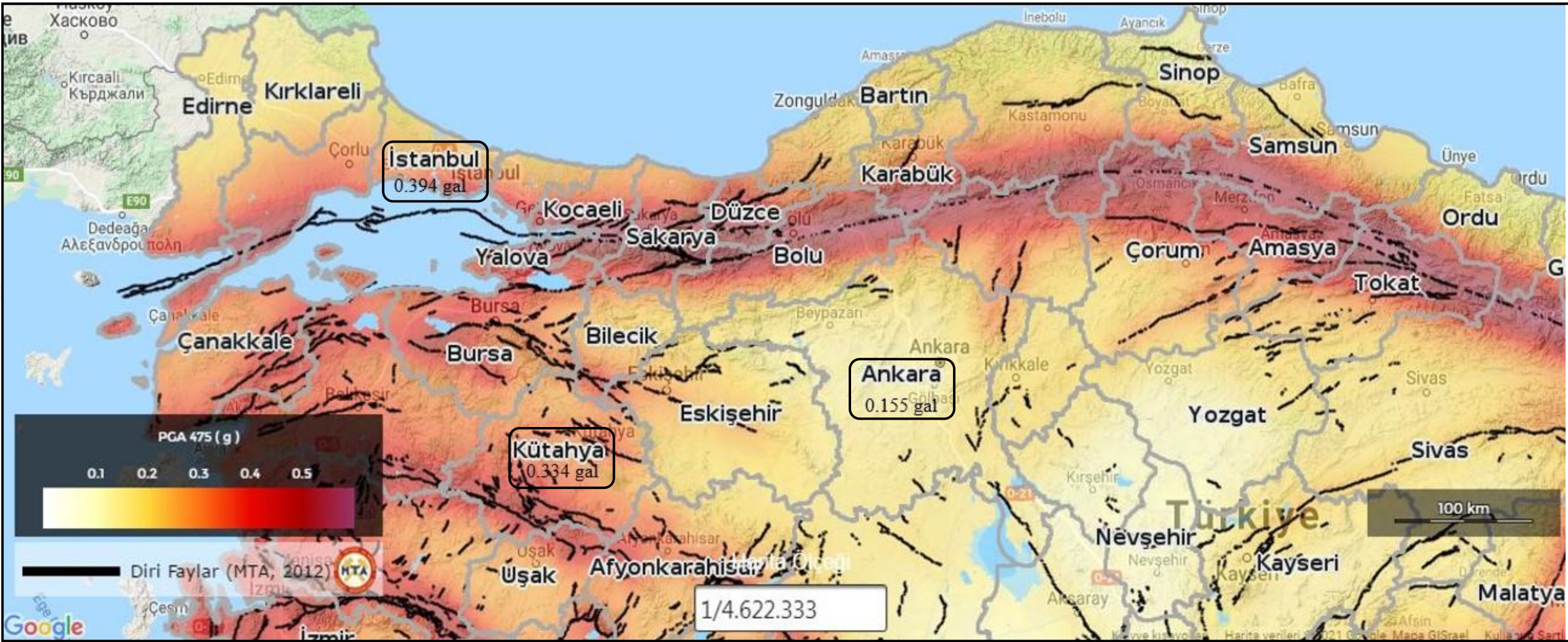
On the other hand, the ground structures of the areas are as follows:

- Alluvial fields
- Terrestrial debris
- Lacustrine sediments
- Hard clay
- Andesite (volcanic) tuff
- Mud stone,
- Sand stone and
- Limestone

Among mentioned grounds only Andesite Tuff and Limestone are hard grounds. Of these floors, the Limestone belongs to the lime quarry around the Çin Çin study area, and the Andesite Tuff belongs to the sloping area in the Altıkaraağaç study area. Other soils are completely soft grounds and there is also a risk of liquefaction and flooding in alluvial soils.

These ground properties also determine the seismicity of the areas. In the below map, the AFAD Turkey Earthquake Hazard Map and the relevant data of the study areas presented in a superimposed form. According to the this map, the study areas in Tavşanlı and Istanbul have serious earthquake acceleration and carry risks. The great earthquake expected in Istanbul (which has completed its period) increases risks day by day.

Figure 4.20. Study Areas in Turkey Earthquake Hazard Map



Secondly Structural Risks:

Within the scope of these analyzes, it has been assumed that the structural risks have been eliminated within the scope of the current earthquake regulation due to the lack of detailed technical analysis, information and permits. However, the analysis of structural risks was made for every field as per the legislation of the law and could not be reached these analysis except for Demetevler and Tavşanlı since they are kept confidential.

In this context, with certain assumptions, these analyzes were passed superficially and focused on the examination of the planning criteria, which is the main objective of the study.

These assumptions about structural quality analysis are as follows:

- Illegal areas did not receive engineering assistance. These areas were built with the masonry technique. Therefore, all structural problems and negativity parameters are encountered in the fields.
- In areas dominated by the condominium regime, there are structural negativity parameters such as heavy overhead and structural design irregularity.
- Since mass housing areas were built by cooperatives, they received engineering assistance. Therefore, there are no structural problems in these areas.
- Structural problems arising from non-residential reasons such as weak floors in areas with commercial activities and short column effect in areas with slopes are seen.

On the other hand, the ages of the buildings in the study areas and the building materials were determined on the basis of literature reviews of similar areas, field observations and verbal statements from relevant institutions.

The ages of the buildings in the study areas vary depending on many factors detailed in the relevant sections.

However, if we periodize the ages of the buildings in the area according to the data obtained from the institutions and the literature, it has been observed that the block based mass housings are 30 and 50 years old, the parcel based structures intensified between the years 1980 and 2002 and the gecekondu squatters ranged between 30 and 84 years.

Since these gecekondu areas were illegally built, they did not receive the necessary technical assistance. This situation revealed structural negativity parameters such as heavy overhead and irregularity problems in most of the structures in question.

On the other hand, structural risks are not encountered in block based mass housings as a result of engineering assistance, while in parcel-based structures, in addition to negativity parameters, problems from non - residential sources are also observed.

These non residential sources are misused slope and commercial activities, both of which have created a short column and weak floor effect.

It has been seen and assumed that the risks in the areas in the past are no longer risks due to the separate structure order preference and Building Earthquake Regulation of 2019.

Therefore, the following results were obtained with the analyzes made in the Disaster Risk in general:

- After these physical analysis results it can be said that the structural risks in the past have been eliminated.

Beyond that, the following results were also obtained when the study areas were examined in terms of the Planning Criteria.

When the study areas were examined, it was seen that the upper scale plans were planned as medium density (150-300 p/ha) in all except Istanbul. The areas in Istanbul are planned as high density (300-600 p/ha) due to its population and settlement structure.

However, all of these areas were planned at an upper density level to be revised after the urban transformation in the lower scales. These density increases have been achieved by increasing the construction area coefficients in the areas. This increase **goes up to 625% in some places**. The minimum increase of construction area is in Turk İş with 134%. The only exception to this increase is the Demetevler urban transformation project. The reason for the exceptional situation is that the MIT land adjacent to the area is purchased and used. The density is increased in all of the selected study areas. That increase goes up 425% in Altıkaraağaç region. Moreover **the population is increased 4 times there**. On the other hand the minimum population increase is in the Hatip Stream region with 23%, while the minimum density increase is 34% in Atış Alanı. The density and construction area increase in the area was originally achieved by increasing the number of structures in the area and subsequently the population. Along with the population increase in the area, public areas have also been increased. Exceptions to this increase are the transformation areas in Istanbul. The expropriation rate in these areas is zero and the local people in the area were expected to benefit from the infrastructure within a 1kilometer radius of walking. However, while the increasing population in the transformation area uses the rights of other people in this radius, they also change the socioeconomic structures of these infrastructures. Although the public spaces have been increased, the infrastructure areas have remained far from the standards of Planned Areas Regulation II. That is, vertical layout was preferred in order to protect the rights of local people and also contractors and create necessary public spaces, this preference created a more crowded and dense settlements far away from standart infrastructures. The increased maximum heights caused the areas transformed within the framework of the law to create a black hole effect in the city, but also gave the same right of construction to their incompatible surroundings. Finally, when we look at the ownership patterns in the areas, many number of small ownership structure have been replaced by a small number of large (even one piece in some places) ownership structures. In this context, transportation structures have likewise been developed more broadly but simply.

Therefore, the following results were obtained with the analyzes made in the Planning Criteria:

- Although three of the study areas (Altıkaraağaç, Atışalanı and Demetevler) have the same pattern as their surroundings, their borders are narrower. This has become such a situation that forcibly confiscate areas with high land value rather than to convert district that are really at risk of earthquake
- All areas are planned more intensively, unlike their upper-scale plans.
- The construction area coefficient was increased in all areas except Demetevler, which was resolved in a larger area.
- Additional population has been introduced to all areas.
- The number of buildings has been increased in all areas except the illegally built areas.
- Even though the public areas were increased, the infrastructure areas remained at a very low level according to the Planned Areas Regulation II. Local people have to use the infrastructure belonging to others within walking distance (1-kilometer radius) the socioeconomic structures of these infrastructures also change over time, and they are often insufficient.
- The property texture in the areas is arranged to be larger but less. The transport structure has also been changed in the same direction.
- Areas that are built inconsistently give the same right to their surroundings.

Finally, the following results were obtained when the study areas were examined in terms of the Agreement Model.

In half of the study areas, more houses were built than the right holders have. Moreover 75% (6 out of the 8) study areas transformed under the law, the transformation was planned by borrowing the local people. In this process, the tenants in the areas were generally ignored.

Beyond these, as detailed in the relevant section of this thesis, Tümertekin stated in the article wrote in 1970 that businessmen with 20-25 squatter gecekondu emerged and they turned the housing problem into commerce. This situation is also seen in the areas transformed by the Law Numbered 6306. Today, this commerce is done by bank and contractor company/supervisor institutions employees and real estate agents.

As a result of agreement model section, the overlooked point is that the people living in the urban transformation areas will not be able to pay the housing costs that arise in the transformed areas due to their socio-economic position, and even they do, they will not be able to participate in the consumption processes this time that occur in these areas.

Therefore, they have to move from their living areas to suitable urban areas for their socio-economic conditions. This process also naturally makes decomposition more visible and create capitalist urban land rent while leaving it into the wealthy. (Koçancı, Ergün, 2018: 51-53)

Last but for most as a concluding remark of these spatial analysis ; despite the socio-economic realities of the local community in the urban transformation region, the results of regeneration could be come exclusionary, polarizing and poverty enhancing. In other respects, although this mechanism which is based on rent generation produces earthquake-resistant structures, it does not eliminate neither urban poverty nor urban risks.

When the areas included in urban transformation within the scope of the Law Numbered 6306, whose details are mentioned above, are examined. It has seen that there are common points in all the areas where we can create an algorithm. These points are presented quantitatively in percentages in Table 4.11. This algorithm is also tabulated in below table.

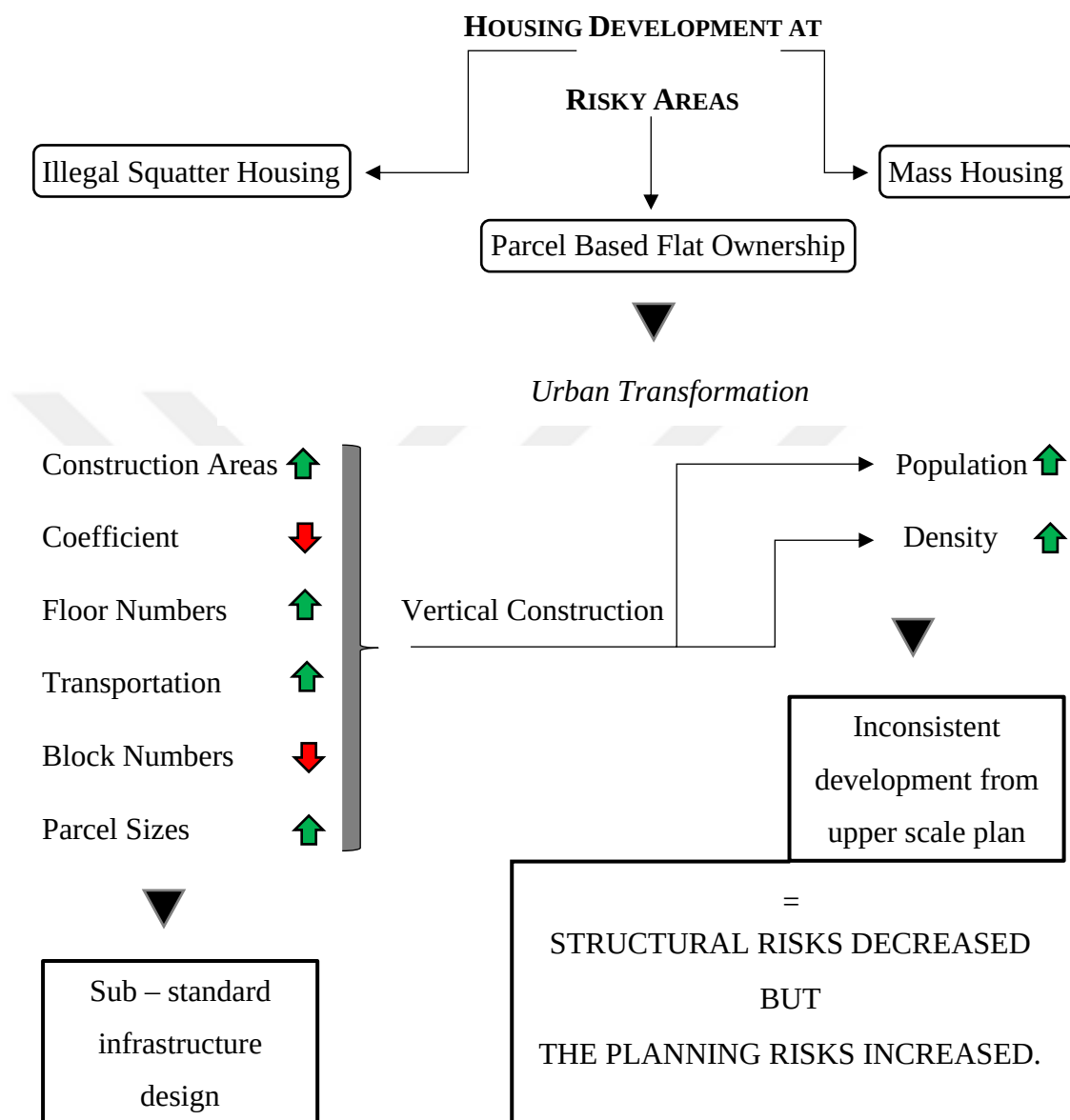


Table 4.11 Percentage Change Assessment of Physical Analysis Results

Overview of Spatial Analysis of Areas Transformed Under the Law Numbered 6306 In Turkey			Unit	Illegal Housing				Conditions of the Housing								Conditions of the Ground			
				Squatter Area				Block Based Mass Housing				Parcel Based Flat Ownership Regime				Squatter Area		Parcel Based Flat Ownership Regime	
				Çin Çin		Altıkaraagaç		Albayrak		Türk İş		Atış Alanı		Demetevler		Hatip Stream		Gar	
				Before	After	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After
Planning Criteria	Development Plan	Construction Area	%	250	200	185	134	210	60	610	200								
		Coefficient	%	20	15	100	45	40	25	125	134								
		Floor Number	%	1200	1500	245	300	600	55	500	150								
	Population		%	185	360	225	225	145	120	120	200								
	Density		%	285	425	225	225	134	55	300	215								
	State Partnership Share		%	375	515	100	134	100	200	240	115								
	Standarts	Health: 1.5	%	100	100	100	100	100	120	690	50								
		Education: 6.5	%	55	35	100	45	100	300	530	50								
		Administration: 1	%	230	490	100	420	100	235	2555	75								
		Open Areas: 10	%	330	420	100	6	100	160	5000	55								
	Transportation		%	115	345	100	35	20	60	95	15								
	Block	Number	%	34	100	100	60	6	55	150	60								
		Size	%.	185	100	100	160	1530	280	70	234								
	Parcel	Number	%	4	3	100	80	1	34	45	15								
		Size	%	1485	3030	100	130	145	455	235	915								
Quite Problematic												Solution Provider							

*100 Represents the situation before urban transformation

Table 4.12: Transformation Algorithm of Disaster Risky Areas under the Law Numbered 6306



To summarize, regardless of the housing texture (illegal squatter area, mass housing area or parcel – based flat ownership) before the urban transformation, every areas are transformed into either residences or multi – storey mass housing areas.

Uniformity is observed in these areas. Standardization ignores the unique characteristics of the area and its' inhabitants. Therefore, vertical construction is preferred in the area.

This preference causes

- Increase in the construction areas
- Decrease in the coefficients
- Increase in the floor numbers
- Increase in the transportation network
- Decrease in the number of blocks and
- Increase in the parcel sizes.

All these preferences, which trigger each other, also cause an increase in population and density in these areas independent of the upper – scale plan. This increase causes infrastructures that remain the same in terms of quality and capacity to remain far from standards mentioned above.

Finally, it was concluded that the structural risks decreased but the planning risks increased. These results were later discussed with the experts in the in – depth interviews

4.5.2 Factorial Evaluation

In order to make more comprehensive analysis and achieve better outcomes, this thesis used both primary and secondary data collection methods together. Quantitative data collected with the support of many official administration. A detailed information about official administrations where the quantitative data collected has been presented above in the relevant table 1.4.

Other secondary data resources which were studied in this thesis were mainly academical research studies, official reports, announcements and of course the Law Numbered 6306

Primary (advisory) data which is the subject of this section were collected by in - depth interviews that are conducted with experts who are 10 years experienced stakeholders of that process. For that purpose, stakeholders of urban transformation system in Turkey within the scope of the Law Numbered 6306 has been specified. Following the specification of the stakeholders (as producers), they are also categorized according to what roles they have throughout this process in 5 layers as international services, public services, practioners, civil society and doctriners. A detailed information about the stakeholders has been presented below (also above in the table 1.3) in the table 4.11 in - depth interviews details.

In this context 24 at least 10 years experienced experts from 24 different institution/company or firm identified for in-depth interviews. 13 of these interviewers are man and 9 of them (38%) are women, their occupational distribution is tabulated below table.

Table 4.13 The Professions of The Interviewers

City Planner	6 (25 %)	Statistician	1	Psychologist	1
Civil Engineer	4 (17 %)	Environmental Engineer	1		
Architect	3 (13 %)	Business Administrator	1		
Geological Engineer	3 (13 %)	Topographical Engineer	1		
Lawyer	2 (9 %)	Sociologist	1		

On the other hand, the average age of interviewers is 46 (with at least 33 and at most 79) and their average professional experience is 21 (with at least 10 and at most 55). The ages/professional experiences of the interviewers are illustrated below figure.

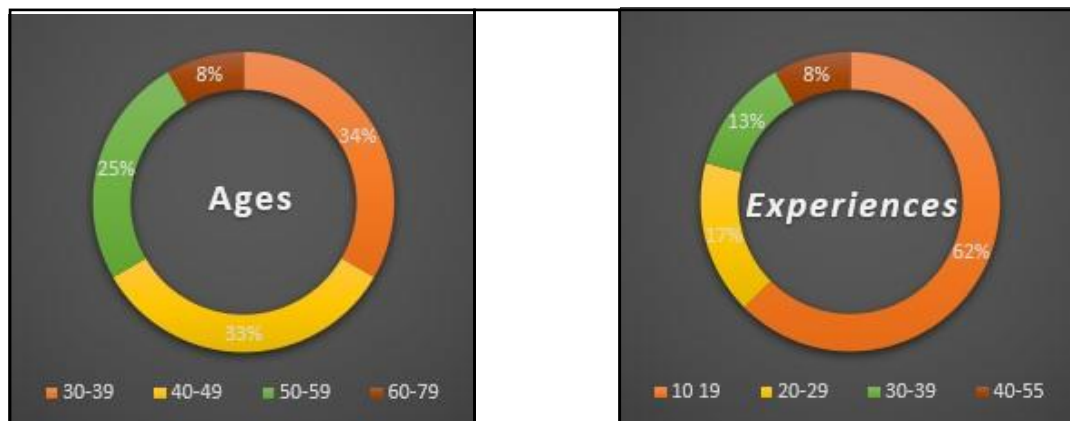


Figure 4.21. The Ages / Professional Experiences of The Interviewers

The in-depth interview answers of the expert stakeholders, whose information is detailed, are given below for each question. Among these stakeholders, the chamber of civil engineers and the chamber of architects refused to participate. For this reason, very old members of the mentioned chambers were contacted and interviewed. All these answers of expert stakeholders were overlapped in layers and represented as list that evaluated by the author. This process is solved with the N Vivo 12^{for students} programme.

Question 1: According to the Law Numbered 6306 on Transformation of Disaster Risky Areas, the areas subject to urban transformation are generally selected for what basis and what reason?

- a. Creating public spaces,
- b. Renovation of buildings that have completed their economic life and that have inadequate material strength,
- c. Regeneration of risky settlements developed over risky grounds
- d. Legalizing illegally built areas,
- e. Allocation of public lands to private ownership
- f. Producing material for politics at national and local level,
- g. Interfering with the social structure of the regions,
- h. Creating potential implementations that will feed the construction industry,

- i. Manipulating land values.

Question 2: Our country is exposed to many natural and technology sourced hazards. Why do you think these hazards, turning into disasters, cause high risks in our cities? What do you think are the main factors that increase these urban risks?

- a. Even if the name is changed, the zoning amnesty processes carried out regularly before each election or after each disaster,
- b. Continuing changes in the zoning legislation contain provisions that include decisions in favor of the construction sector and the sub-sectors under its influence, instead of protecting and improving the spatial and environmental quality,
- c. The legal and bureaucratic processes are taken too long time,
- d. In the preparation of urban transformation implementations, determining the boundaries of the area and making the construction decisions are carried out at the desk in a non - participatory and non - transparent manner,
- e. While urban transformation implementations affect not only its own borders but also the property texture in its immediate surroundings, it creates an uncontrolled and informal economy,
- f. Using the expropriation opportunity as a threat,
- g. Lack of presence of public spaces,
- h. There will be a rent in all kinds of construction activities involving profit - oriented capital structures and this rent can not be shared,
- i. The high fragility of the illegal building stock to disasters such as earthquakes,
- j. The buildings have completed their economic life,
- k. Gentrification appetite,
- l. The public interest is not preferred because it does not create an economic income,
- m. The penetration of politics into all areas of Turkish society,

- n. Preference for an economic structure focused on the construction sector, since national economic activities cannot create added value at a level that can compete with developed economies,
- o. The education system is not organized in a way that will provide neither intellectual development nor geographical awareness,
- p. Interfering with spatial plan decisions,
- q. All stakeholders of the urban transformation process are looking at the issue as a method of economic gain,
- r. Public personnel who act illegally do not face adequate legal sanctions,
- s. Partial and widespread plan changes,
- t. Ignoring the scientific knowledge,
- u. Transfer of public ownership to private ownership,
- v. Population agglomerations resulting from regional development differences,
- w. Areas that have been allowed to be built on fault lines, high sloping landslide areas, stream beds and other geologically unsuitable areas without a plan until today,
- x. The lack of inspection of buildings that have a plan but was built without complying with any scientific rule, or ignoring the risks detected in the inspection,

Question 3: Which segments do you think prefer the areas with high urban risks as accomodation areas? What do you think might be the main reasons for this choise?

- a. The imbalance in capital transfer creates places where poverty is concentrated spatially. In other words, population concentrations are observed in areas where there is urban poverty. Along with this, concentration in these places causes spatial problems such as; the decrease in the quality of building materials, the lengthening of transportation times, the narrowing of road widths, the lack of open spaces and other socio - technical infrastructure areas.

a. Over time, Urban sprawl formed with these regions shifts to problematic areas such as; flood areas, high sloping landslide areas, geologically unsuitable areas or fault lines. This leads to the formation of urban risky areas.

Question 4: What do you think are the basic principles that need to be taken into account in order to create safe/healthy living spaces?

- a. Participatory planning process in which local dynamics are also active,
- b. Creating a transparent and fast bureaucracy environment,
- c. Ensuring equality in space, as everyone is equal in front of the law,
- d. Observing the rights of people living in the transformation areas by performing on - site transformation,
- e. Making interventions to create public interest, not rent,
- f. Planning understanding that will not adversely affect the zoning structure in the surrounding area,
- g. Producing planning decisions by considering existing basic habits, neighborhood culture and economic structure,
- h. Allocating sufficient resources from the public budget,
- i. Not increasing the population density,
- j. Establishing commercial centers that will provide continuous income in the area to be using for sustainability of the area
- k. Maintaining the tenant rate in the area and using this income for sustainability of the area
- l. Adoption of the terms by all stakeholders, that consensus is essential;
- m. Creating blue - green public spaces suitable for the wind flow,
- n. Designing urban spaces in harmony with its immediate surroundings
- o. Developing environmentally friendly designs on issues such as energy use, water consumption and building materials

- p. Equipping the region with adequate social and technical infrastructure areas
- q. Caring for the concern of equal distribution of the rent instead of owning it to a certain group,
- r. Increasing confidence in central and local administrations,
- s. Separation of areas for underground, on - road or multi - storey parking spaces,
- t. Using up – to - date technological opportunities,
- u. Spatial, economic and temporal prioritization of urban transformation implementations carried out to ensure the safety of life and property,
- v. In the sense of having a healthy living space, the idea of having less size than before it was should be established,
- w. Implementation should be carried out by local administrations, which are closely intertwined with the public, rather than central administrations,

Question 5: What do you think should be the role of your field of expertise in urban transformation process? Do you think it is a sufficient role in the system? If it is not, how do you think it should be? What can you do to contribute more with this role?

Urban transformation is an interdisciplinary concept, and the ultimate goal is to contribute to the creation of healthy and livable spaces and to make it sustainable, with the joint work of teams of different professions, taking into account the necessary scientific inputs and based on the public interest.

It would be healthy for **City Planners** and **Disaster Managers** to act as moderators that bring together all relevant stakeholders in urban transformation processes and direct the decision - making process. In this structure, taking on a role that conveys scientific information and suggestions to the stakeholders in a plain language and also directs them to the right options will ensure that the problems arising from the current rent scheme are minimized. Therefore, it is not possible for a structure that is left only to the city planner and the implementers to create healthy results.

Main contributions of the **Civil Engineers** to the urban transformation process should be to increase the quality with implementing legislation in areas where the building design and material strength is low. The intervention in question will help to eliminate the structural risks completely as it is assumed within the context of this thesis.

Main contributions of the **Architects** to the urban transformation process should be through two basic interventions. The first of these interventions is to create architectural designs suitable for local architectural features and its immediate surroundings, contrary to the appetite for standardization, and the other is to develop environmentalist designs on issues such as energy use, water consumption and building materials.

Main contributions of the **Geological Engineers** to the urban transformation process should be to analyze the ground on which the area will develop, and to determine the appropriate alternative land uses according to the maximum bearing capacity limits on the relevant soil types and the construction conditions of these uses.

Main contributions of the **Lawyers** to the urban transformation process should be to ensure that the law is constantly revised to follow current changes, facilitate the implementation of scientific requirements and protect the requirements of local people.

Main contributions of the **Business Administrators** to the urban transformation process should be to create commercial implementations that generate continuous income in the urban transformation regions in order to ensure the sustainability of the maintenance and repair processes of the areas and to support the local people economically.

Main contributions of the **Sociologists** to the urban transformation process should be to provide a good understanding of the dynamics of the area. This information will facilitate reconciliation, as well as ensure reassimilation of the transformation field for a healthier transformation.

Main contributions of the **Politicians** to the urban transformation process should be to ensure that a participatory, transparent and rapid methodology is organized and also to contribute economically to this organization for supporting the local people.

* The psychologist and environmental engineer did not answer this question.

Question 6: What are the strengths and opportunities of the urban transformation implementations carried out within the scope of Law Numbered 6306?

- a. The fact that the implementation of the law can be done in a short time if the majority is ensured,
- b. Providing the transition to planned urbanization,
- c. Increasing the resilience of physical space against disasters,
- d. Directing public expenditures towards these activities,
- e. Improving the spatial quality,
- f. Encouraging local people to organize,
- g. Revitalizing the economic activities of the region,
- h. Ability to create social infrastructure and public spaces,
- i. Developing a high - capacity technical infrastructure in line with current technology,
- j. Providing rental support in the transformation process,
- k. Providing tax and duty exemption,
- l. Accelerating the legal and bureaucratic processes,
- m. Local government has the authority to manage the process,
- n. Having the expropriation authority.

Question 7: What are the weakness and threats of the urban transformation implementations carried out within the scope of Law Numbered 6306?

- a. The private sector's involvement in these processes due to the inadequacy of the public budget,
- b. Being open to for - profit companies to make arrangements on the land that will provide them with rent,
- c. Relatively well - positioned housing owners make more demands than others and use this as a bargaining tool,
- d. Failure to provide on - site transformation,
- e. Elimination of public spaces,
- f. Failure to comply with the principles of urbanism and the principles of science,
- g. Ignoring the tenant population,
- h. Increasing the effectiveness of the informal economy,
- i. Creating urban spaces that cannot integrate with their immediate surroundings,
- j. Increasing population density in areas where the quantity and quality of technical infrastructure remains the same
- k. Compressing economic activities to the construction sector and its sphere of influence
- l. Building that is not suitable for existing basic habits, neighborhood culture and economic structure,
- m. Appetite for vertical construction which is disrupting the urban silhouette,
- n. Developing social infrastructure areas that is not sufficient for the increasing population density,
- o. Changing the structure of existing social infrastructure.

Question 8: Do the urban transformation implementations carried out in “Risky Areas” within the scope of Law Numbered 6306 in Turkey create more resilient cities by actually eliminating the disaster risk “in the whole city region” in accordance with their main purpose?

If your answer is No, what are the issues that you see lacking in these areas?

The common view on this issue is that structural risks are actually eliminated, but disaster risks deepen even more in terms of planning and other related disciplines.

Question 9: Are the problems and solutions you mentioned above only specific to the region you live in?

If your answer is Yes, what are the main factors that make you think this way?

If your answer is No, what are the factors that cause this prevalence that can be observed in other cities?

Yes, the main factor is

- a. The relationship between politics and society,
- b. Focusing on providing economic benefits instead of trying to reduce disaster risk, which was the main goal,
- c. Uniformity and standardization that is not only seen in planning and architecture, but also in all areas of social life.

Question 10: What other thoughts do you want to add in the context of this interview?

If you have important issues that you want to add, you can specify them here.

- a. The issue is much more important than it seems, and its solution is difficult considering the applications up to date; It is necessary to unite the whole society in similar understandings and approaches with successful practice examples.

b. Decision - making processes that are either not participatory and non transparent or stuck in legal and bureaucratic processes and decisions taken at the desk due to the approach of decision - makers that do not take into account scientific contribution, are controversial as they can provide a broad perspective of the sentence "creating healthy and safe living environments" in Article 1 of the Law Numbered 6306.

c. When the law and other zoning legislation are evaluated in their entirety, it is an inevitable reality that there should be an implementation process that is integrated with global developments in the field of urban planning and takes into account the disaster risks due to climate change.

d. Disaster risk is one of the biggest problems for our country and one of the most important reasons for the existence of our fields of expertise is to cope with this problem. But if there is still great loss of life and property despite all the bad experiences in the past, we should think there is something to be questioned at this point.

As a result, the answers given by the stakeholder experts in these in - depth interviews detailed above provide to decide the discussion areas for the revision of the Law Numbered 6306 in the conclusion part and also provide a better understanding of the back ground of the spatial and quantitative analysis results.



Table 4.14 In – Depth Interview Details

<i>Interview</i>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
Group	International Servicer	Public Servant	Public Servant	Public Servant	Public Servant	Public Servant	Public Servant	Public Servant
Sub Group	-	Central Government	Central Government	Central Government	Central Government	Local Management	Local Management	Local Management
Institution	UNISDRR	AFAD	Ministry of Environment, Urbanization and Climate Change	Emlak Konut GYO	Bank of Provinces	Metropol Municipality of Ankara	Metropol Municipality of Istanbul	District Municipality of Tavşanlı
Profession	Psychologist	Geological Engineer	City Planner	Architect	City Planner	City Planner	Sosyolog	Topographical Engineer
Experience	19	29	14	10	27	17	11	15
Age	46	52	37	35	50	43	37	39
Gender	Women	Man	Women	Women	Man	Man	Man	Man
<i>Interview</i>	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>
Group	Public Servant	Practition	Practition	Practition	Practition	Practition	Practition	Civil Society
Sub Group	Local Management	-	-	-	-	-	-	-
Institution	District Municipality of Altındağ	Private Company	GEDAŞ	METU	Private Office	Private Office	Private Office	TEMA
Profession	City Planner	Civil Engineer	Architect	Statistics	Lawyer	City Planner	Geoloq	Environmental Engineer
Experience	15	15	19	15	16	32	23	12
Age	40	38	43	44	45	56	47	38
Gender	Man	Man	Man	Women	Man	Women	Man	Women
<i>Interview</i>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>
Group	Civil Society	Civil Society	Civil Society	Civil Society	Civil Society	Civil Society	Doctrinair	Doctrinair
Sub Group	-	Chamber of	Chamber of	Chamber of	Chamber of	Chamber of	Universities	Universities
Institution	Turkish Earthquake Association	Civil Engineers	Architects	City Planners	Geologist	Ankara Bar Association	Middle East Technical	Boğaziçi
Profession	Civil Engineer	Civil Engineer	Architect	City Planner	Geoloq	Lawyer	Business Administrator	Civil Engineer
Experience	46	55	12	10	12	33	23	31
Age	74	79	35	33	40	59	53	55
Gender	Man	Women	Women	Man	Man	Man	Man	Women



CHAPTER 5

CONCLUDING REMARKS AND PROPOSALS

“Our true mentor in life is only the science.”

Mustafa Kemal Atatürk

In this chapter of the thesis, concluding remarks and proposals will be given. In this context, problem definition, literature review and case studies were overlapped and evaluated. This evaluation will be done by defending thesis over research questions and discussion areas in the limitations of the research study possibilities.

As seen in the literature review, the main expectation from an urban transformation project is to increase the resilience of the region as a result of the implementation. This resilience is evaluated in three contexts: ecological¹, economic² and physical³.

This thesis assumes that the problems caused by ecological sources have been overcome with the acceptance detailed in the relevant section. In this context, the thesis study shifted its focus to the examination of the physical resilience of the urban transformation zones within the scope of the law, in other words, to the examination of the problems caused by urban planning. The socio-economic risks that develop following these problems are also detailed in the discussion areas.

Increasing physical resilience could only be provided by urban planning. In this context, the principles of urban planning are as follows:

- Ending that poverty,
- Sustainable urban economies,
- Preventing infectious diseases,
- Integration in urban life,
- Encouraging participation,
- Ensuring transparency,
- Reduction of disaster risk,

In order for these principles to be realized, they must also be reflected in the physical space. This reflection can be followed by the following criteria.

- Using stream beds and wind corridors as open green-blue areas,
- Making original designs with local architectural features in harmony with its surroundings,
- Considering the wishes of the local people and their socio-economic structure,

Although these criteria have been accepted in the literature, unfortunately, they have been replaced by other criteria in market implementations. These criteria are to achieve maximum profit and to create safe, magnificent and isolated spaces. These market criteria bring with them basic urban problems and subsequent urban physical risks that decrease resilience.

These risks are examined with research questions.

The main research question is formed as follows: based on the empirical evidences;

“Do the urban transformation implementations which have been applied in the risky areas within the scope of the Law Numbered 6306 in Turkey, actually eliminate the risk of disaster at all in accordance with its original purpose.”

In this context, the following conclusions have been reached. In the all examined urban areas, which transformed under the Law Numbered as 6306, it has seen that the issue of disaster risk is considered only in terms of building quality. Therefore, the quality of the building is increased while the quality of the living space is reduced in planning terms. Thus, it was seen that the structural problems were resolved, but on the contrary, the planning problems deepened. This is supported by the results of spatial analysis in detail.

According to these results: uniformity is observed in these areas. Standardization ignores the unique characteristics of the areas and its' inhabitants. Therefore, vertical construction is preferred in the areas.

This preference causes increase in the construction areas, floor numbers, transportation network and parcel sizes and causes decrease in the coefficients and the number of blocks. All these preferences, which trigger each other, also cause an increase in population density in these areas independent of the upper – scale plan while ensuring the rights of contractors and local people.

Finally, this increase causes infrastructures that remain the same in terms of quality and capacity to remain far from standards mentioned above.

In addition to the results of spatial analyzes seeking answers to this main research question; it is also booked into a sub research question based on factorarial evidences.

Mentioned sub research question is given below.

“What points should be discussed if the law is revised for the tomorrow in terms of resilience of urban transformation to disaster risks?”

Within the scope of this research question; throughout the thesis, the problem areas have been identified through literature review, case studies and in – depth interviews. In this final section, the defined problematic issues that need to be weighed in case of revision of the Law Numbered 6306 in the future studies have also been compiled in the following table.

Table 5.1 Discussion Areas for the Revision of the Law Numbered 6306

Discussion Area 1	<u>Infrastructure</u> It is necessary to create social and technical infrastructure areas that are suitable for the population in the area, provide standard capacity and follow the current technology.
Discussion Area 2	<u>Area selection</u> It is necessary to make the area selections in a way to include neighboring areas with the same characteristics and to stage the process. <u>Population and Density</u>

Table 5.2: (continued)

Discussion Area 3	<u>Agreement Model</u> With the consensus of all stakeholders, it is necessary to create income-generating implementations that will feed the area economically instead of making the local people indebted while on-site urban transformation is carried out. The idea that a less and different living space will be created should be taken for granted. In this context, it is also important to encourage the organization of local people.
Discussion Area 4	<u>Transformation Process</u> While making the legal and bureaucratic processes transparent, it should also be accelerated in favor of the local people and the participation of the local people in the process should be given as much importance and encouraged as the participation of experts in different disciplines.
Discussion Area 5	<u>Growth</u> Even if the density increase is made, the population increase in the area can only remain at the rate of the current tenant. This increase in density should be designed in a way that does not disturb the silhouette of the environment. The design in question should also be made in a way that preserves the existing habits and social structure in the area and takes into account the current issues and approaches in the World such as resilience and climate change.
Discussion Area 6	<u>Local Government</u> The process should be managed by a qualified local government that knows the area best. In this context, plan changes that do not bring public benefit should be avoided.
Discussion Area 7	<u>Scientific Contribution</u> Experienced experts from different disciplines should pay attention to the decisions taken in the field, not at the desk.
Discussion Area 8	<u>State Support</u> The methods of abandoning the insistence on zoning amnesty, meeting the profit share in implementations involving the private sector, and expanding the rent support and tax exemption to the local people in the transformation process should be discussed.

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APPENDICES

A. Law Numbered As 6306

Afet Riski Altındaki Alanların Dönüştürülmesi

Hakkında Kanun

Kanun Numarası	: 6306
Kabul Tarihi	: 16/5/2012
Yayımlandığı Resmî Gazete Tarihi	: 31/5/2012

Birinci Bölüm

Amaç ve Tanımlar

Amaç

Madde 1 (1) Bu Kanunun amacı; afet riski altındaki alanlar ile bu alanlar dışındaki riskli yapıların bulunduğu arsa ve arazilerde, fen ve sanat norm ve standartlarına uygun, sağlıklı ve güvenli yaşama çevrelerini teşkil etmek üzere iyileştirme, tasfiye ve yenilemelere dair usul ve esasları belirlemektir.

Tanımlar

Madde 2 (1) Bu Kanunun uygulanmasında;

- a) Bakanlık: Çevre ve Şehircilik Bakanlığını,
- b) İdare: Belediye ve mücavir alan sınırları içinde belediyeleri, bu sınırlar dışında il özel idarelerini, büyükşehirlerde büyükşehir belediyelerini ve Bakanlık tarafından yetkilendirilmesi hâlinde büyükşehir belediyesi sınırları içindeki ilçe belediyelerini,
- c) Rezerv yapı alanı: Bu Kanun uyarınca gerçekleştirilecek uygulamalarda yeni yerleşim alanı olarak kullanılmak üzere, TOKİ'nin veya İdarenin talebine bağlı olarak veya resen Bakanlıkça belirlenen alanları,

ç) Riskli alan: Zemin yapısı veya üzerindeki yapılaşma sebebiyle can ve mal kaybına yol açma riski taşıyan, Cumhurbaşkanınca kararlaştırılan alanı,

d) Riskli yapı: Riskli alan içinde veya dışında olup ekonomik ömrünü tamamlamış olan ya da yıkılma veya ağır hasar görme riski taşıdığı ilmî ve teknik verilere dayanılarak tespit edilen yapıyı,

e) TOKİ: Toplu Konut İdaresi Başkanlığını ifade eder.

İkinci Bölüm

Uygulama

Tespit, taşınmaz devri ve tescil

Madde 3 (1) Riskli yapıların tespiti, Bakanlıkça hazırlanacak yönetmelikte belirlenen usul ve esaslar çerçevesinde masrafları kendilerine ait olmak üzere, öncelikle yapı malikleri veya kanuni temsilcileri tarafından, Bakanlıkça lisanslandırılan kurum ve kuruluşlara yaptırılır ve sonuç Bakanlığa veya İdareye bildirilir. Bakanlık, riskli yapıların tespitini süre vererek maliklerden veya kanuni temsilcilerinden isteyebilir. Verilen süre içinde yaptırılmadığı takdirde, tespitler Bakanlıkça veya İdarece yapılır veya yaptırılır. Bakanlık, belirlediği alanlardaki riskli yapıların tespitini süre vererek İdareden de isteyebilir. Bakanlıkça veya İdarece yaptırılan riskli yapı tespitlerine karşı maliklerce veya kanuni temsilcilerince onbeş gün içinde itiraz edilebilir. Bu itirazlar, Bakanlığın talebi üzerine üniversitelerce, ilgili meslek disiplini öğretim üyeleri arasından görevlendirilecek dört ve Bakanlıkça, Bakanlıkta görevli üç kişinin iştiraki ile teşkil edilen teknik heyetler tarafından incelenip karara bağlanır.

(2) Riskli yapılar, tapu kütüğünün beyanlar hanesinde belirtilmek üzere, tespit tarihinden itibaren en geç on iş günü içinde Bakanlık veya İdare tarafından ilgili tapu müdürlüğüne bildirilir. Tapu kütüğüne işlenen belirtmeler hakkında, ilgili tapu müdürlüğünce aynı ve şahsi hak sahiplerine bilgi verilir.

(3) Bakanlığın talebi üzerine; 28/12/1960 tarihli ve 189 sayılı Millî Savunma Bakanlığı İskân İhtiyaçları İçin Sarfıyat İcrası ve Bu Bakanlıkça Kullanılan Gayrimenkullerden Lüzumu Kalmıyanların Satılmasına Salâhiyet Verilmesi Hakkında Kanun ve 18/12/1981 tarihli ve 2565 sayılı Askeri Yasak Bölgeler ve Güvenlik Bölgeleri Kanunu kapsamında bulunan yerler de dâhil olmak üzere, riskli alanlarda ve rezerv yapı alanlarında olup Hazinesin özel mülkiyetinde bulunan taşınmazlardan;

a) Kamu idarelerine tahsisli olanlar Cumhurbaşkanın kararıyla,

b) Kamu idarelerine tahsisli olmayanlar, ilgili kamu idaresinin görüşü alınarak, Bakanlığa tahsis edilir veya Bakanlığın talebi üzerine TOKİ'ye ve İdareye bedelsiz olarak devredilebilir.

(4) Bu Kanuna göre uygulamada bulunulan alanlarda yer alan tescil dışı alanlar, tapuda Hazine adına tescil edildikten sonra Bakanlığa tahsis edilerek tasarrufuna bırakılır veya Bakanlığın talebi üzerine TOKİ'ye ve İdareye bedelsiz olarak devredilebilir.

(5) Tahsis ve devir tarihinden itibaren üç yıl içinde ve gerekli görülen hâllerde uzatılan süre içinde maksadına uygun olarak kullanılmadığı Bakanlıkça tespit edilen taşınmazlar, bedelsiz olarak ve resen tapuda Hazine adına tescil edilir veya önceki maliki olan kamu idaresine devredilir.

(6) 25/2/1998 tarihli ve 4342 sayılı Mera Kanunu kapsamında olup riskli alanlarda ve riskli yapılarda yaşayanların nakledilmesi için Bakanlıkça ihtiyaç duyulan taşınmazlar, 4342 sayılı Kanunun 14 üncü maddesinin birinci fıkrasının ilgili (g) bendindeki alanlardan sayılarak, tahsis amaçları aynı maddeye göre değiştirilip tapuda Hazine adına tescil edilir; bu taşınmazlar hakkında bu Kanuna göre uygulamada bulunulur.

(7) Bakanlık, riskli yapı tespiti için lisanslandırılan kurum ve kuruluşların faaliyetlerini denetleyebilir. Mevzuatta öngörülen esaslara uygun olarak görevini yerine getirmeyen lisanslı kurum veya kuruluşlara, işlenen fiil ve hâllerin durumuna göre aşağıdaki idari yaptırımlar uygulanır.

a) Yazılı uyarı cezası verilecek fiiller:

- 1) Riskli yapı tespit raporunda teknik yönden tespit edilen eksikliklerin verilen süre içerisinde düzeltilmemesi
- 2) Yapı maliki olmayan birinin talebine istinaden riskli yapı tespiti yapılması
- 3) Daha önce riskli yapı tespitine konu edilmiş bir yapı hakkında ikinci kez riskli yapı tespiti yapılması

b) 15.000 Türk lirası idari para cezası verilecek fiiller:

- 1) İki kere yazılı olarak uyarı cezası alınmasından sonra, uyarı cezasını gerektiren başka bir fiilin tespit edilmesi
- 2) Riskli yapı tespitinde yapıya ilişkin verilerin eksik veya yanlış alınarak hesap yapılması neticesinde riskli bir yapının risksiz veya risksiz bir yapının riskli olarak tespit edilmiş olması
- 3) Yapıda teknik inceleme yapılmadan riskli yapı tespit raporu hazırlanması

c) Lisans iptali cezası verilecek fiiller:

- 1) Lisanslandırma şartlarının kaybedilmesi üzerine verilen süre içerisinde şartların sağlanmaması
- 2) Lisans başvurusunda gerçeğe aykırı bilgi ve belge sunulduğunun tespit edilmesi
- 3) Mevcut olmayan bir yapı hakkında riskli yapı tespit raporu hazırlanması
- 4) Daha önce üç defa idari para cezası alınmış olması

ç) Riskli yapı tespiti yapmak üzere lisanslandırılmış olan 29/6/2001 tarihli ve 4708 sayılı Yapı Denetimi Hakkında Kanuna göre Bakanlıktan izin belgesi almış yapı denetim kuruluşları ile laboratuvar kuruluşları, 4708 sayılı Kanuna göre belirli bir süre ile yeni iş almaktan men cezası almaları durumunda aynı süre içerisinde riskli yapı tespiti faaliyetinde de bulunamazlar.

d) Yapı denetim kuruluşları ile laboratuvar kuruluşlarının 4708 sayılı Kanuna göre izin belgelerinin iptal edilerek faaliyetlerine son verilmesi durumunda riskli yapı tespiti lisansları da iptal edilir.

(8) Sekizinci fıkrada öngörülen cezalar, ilgili lisanslı kurum veya kuruluşun savunması alınarak verilir ve yazılı olarak tebliğ edilir. İdari para cezaları, tebliğinden itibaren bir ay içinde ödenir. Süresinde ödenmeyen idari para cezaları, 21/7/1953 tarihli ve 6183 sayılı Amme Alacaklarının Tahsil Usulü Hakkında Kanun hükümlerine göre vergi dairelerince takip ve tahsil edilir. İdari para cezasına karşı otuz gün içinde yetkili idare mahkemesine itiraz edilebilir. İtirazlar, zaruret olmayan hâllerde evrak üzerinden incelenerek en kısa süre içinde karara bağlanır. İtiraz üzerine verilen mahkeme kararları kesindir. İdari para cezası her takvim yılı başından geçerli olmak üzere o yıl için 4/1/1961 tarihli ve 213 sayılı Vergi Usul Kanununun mükerrer 298 inci maddesi hükümleri uyarınca tespit ve ilân edilen yeniden değerlendirme oranında artırılarak uygulanır. Bu suretle idari para cezasının hesabında bir Türk lirasının küsuru dikkate alınmaz.

(9) Lisansı iptal edilen kurum ve kuruluşlar, yeni riskli yapı tespiti işi almamak kaydıyla, daha önce hazırladıkları raporlarda tespit edilen eksiklikleri tamamlayıncaya kadar faaliyetlerine devam edebilirler.

(10) Lisansı iptal edilen kuruluşun ortakları, bu kuruluşteki hisselerini devretseler dahi beş yıl süre ile başka bir lisanslı kuruluşa ortak olamazlar, bunların kurdukları kuruluşlara lisans verilmez ve riskli yapı tespitinde görev alamazlar.

(11) Lisanslı kuruluşlara iki kez sekizinci fıkranın (b) bendinin (2) ve (3) numaralı alt bentleri uyarınca para cezası verilmesine sebep olan mühendisler ile mevcut olmayan bir yapı hakkında riskli yapı tespit raporu hazırlayan mühendisler, üç yıl süre ile başka bir lisanslı kurum ve kuruluşta görev alamaz, başka bir lisanslı kuruluşa ortak olamaz ve bunların kurdukları kuruluşlara lisans verilmez. Bu mühendislerin durumu ilgili meslek odasına bildirilir. Meslek odası, bu mühendisler hakkında kendi mevzuatına göre işlem yaparak neticesini Bakanlığa bildirir.

Tasarrufların kısıtlanması

Madde 4 (1) Bakanlık veya uygulamayı yürütmesi hâlinde TOKİ veya İdare, riskli alanlarda ve rezerv yapı alanlarında her türlü imar ve yapılaşma işlemlerini iki yıl süre ile geçici olarak durdurabilir. Uygulamanın gerektirmesi hâlinde imar ve yapılaşma işlemlerinin geçici olarak durdurulması bir yıl daha uzatılabilir.

(2) 3 üncü maddenin üçüncü fıkrasında belirtilen taşınmazlar, tahsis ve devir işlemleri sonuçlandırılıncaya kadar satılamaz, kiraya verilemez, tahsis edilemez, ön izne veya irtifak hakkına konu edilemez.

(3) Uygulama sırasında Bakanlık, TOKİ veya İdare tarafından talep edilmesi hâlinde, tabii hak sahiplerinin de görüşü alınarak, riskli alanlardaki yapılar ile riskli yapılara elektrik, su ve doğal gaz verilmez ve verilen hizmetler kurum ve kuruluşlar tarafından durdurulur.

Tahliye ve yıktırma

Madde 5 (1) Riskli yapıların yıktırılmasında ve bunların bulunduğu alanlar ile riskli alanlar ve rezerv yapı alanlarındaki uygulamalarda, öncelikli olarak malikler ile anlaşma yoluna gidilmesi esastır. Anlaşma ile tahliye edilen yapıların maliklerine, kiracılarına ve yapıda ikamet etmek şartıyla sınırlı ayni hak sahiplerine geçici konut veya işyeri tahsisi ya da kira yardımı yapılabilir.

(2) Uygulamanın gerektirmesi hâlinde, birinci fıkrada belirtilenler dışında olup Kanun kapsamındaki yapıları kullanmakta olan kişilere de geçici konut veya işyeri tahsisi ya da kira yardımı yapılabilir.

Bu kişiler ile yapılacak olan anlaşmanın, bunlara yardım yapılmasının, enkaz bedeli ödenmesinin ve bankalardan kullanacakları kredilere dönüşüm projeleri özel hesabından karşılanmak üzere faiz desteği verilmesinin usul ve esasları Cumhurbaşkanınca belirlenir.

(3) Uygulamaya başlanmadan önce, riskli yapıların yıktırılması için, bu yapıların maliklerine altmış günden az olmamak üzere süre verilir. Bu süre içinde yapı, malik tarafından yıktırılmadığı takdirde, yapının idari makamlarca yıktırılacağı belirtilerek ve tekrar süre verilerek tebligatta bulunulur. Verilen bu süre içinde de maliklerince yıktırma yoluna gidilmediği takdirde, bu yapıların insandan ve eşyadan tahliyesi ve yıktırma işlemleri, yıktırma masrafı ile gereken diğer yardım ve krediler öncelikle dönüşüm projeleri özel hesabından karşılanmak üzere, mahallî idarelerin de iştiraki ile mülki amirler tarafından yapılır veya yaptırılır.

(4) Birinci, ikinci ve üçüncü fıkralarda belirtilen usullere göre süresinde yıktırılmadığı tespit edilen riskli yapıların yıktırılması, Bakanlıkça yazılı olarak İdareye bildirilir. Buna rağmen yıktırılmadığı tespit edilen yapılar, Bakanlıkça yıkılır veya yıktırılır. Uygulamanın gerektirmesi hâlinde Bakanlık, yukarıdaki fıkralarda belirtilen tespit, tahliye ve yıktırma iş ve işlemlerini bizzat da yapabilir. Bakanlık veya İdare tarafından yapılan veya yaptırılan riskli yapı tespit, tahliye ve yıktırma masrafları, hisseleri oranında maliklerden 6183 sayılı Kanuna göre tahsil edilir.

Uygulama işlemleri

Madde 6 (1) Üzerindeki bina yıkılarak arsa hâline gelen taşınmazlarda daha önce kurulmuş olan kat irtifakı veya kat mülkiyeti, ilgililerin muvafakatleri aranmaksızın Bakanlığın talebi üzerine ilgili tapu müdürlüğünce resen terkin edilerek, önceki vasfı ile değerlemede bulunularak veya malik ile yapılan anlaşmanın şartları tapu kütüğünde belirtilerek malikleri adına payları oranında tescil edilir. Taşınmazların niteliği resen mevcut duruma göre tescil edilir.

(1) Bu taşınmazların sicilinde bulunan ayni ve şahsi haklar ile temlik hakkını kısıtlayan veya yasaklayan her türlü şerh, hisseler üzerinde devam eder.

Belirtilen haklar ve şerhler, tapuda; tevhit, ifraz, alan düzeltme, taksim, ihdas, terk, tescil, kat irtifakı ve kat mülkiyeti tesisine ilişkin işlemlerin yapılmasına engel teşkil etmez ve bu işlemlerde maliklerin ve ilgililerin muvafakati aranmaz. Yeni yapılar için kat irtifakı ve kat mülkiyeti tesisi safhasında belirtilen haklar ve şerhler, muvafakat aranmaksızın sadece söz konusu haklar ve şerhlerden yükümlü olan malike düşecek bağımsız bölümler üzerinde devam ettirilir. Uygulama alanında cins değişikliği, tevhit, ifraz, alan düzeltme, taksim, ihdas, terk ve tescil işlemleri muvafakat aranmaksızın Bakanlık, TOKİ veya İdare tarafından resen yapılır veya yaptırılır. Bu parsellerin malikleri tarafından değerlendirilmesi esastır. Bu çerçevede riskli alanlar ve rezerv yapı alanlarında uygulama yapılan etap veya adada, riskli yapılarda ise bu yapıların bulunduğu parsellerde, yapılar yıktırılmadan önce, parsellerin tevhit edilmesine, münferit veya birleştirilerek veya imar adası bazında uygulama yapılmasına, ifraz, terk, ihdas ve tapuya tescil işlemlerine, yeniden bina yaptırılmasına, payların satışına, kat karşılığı veya hasılat paylaşımı ve diğer usuller ile yeniden değerlendirilmesine, yapının paydaşı olup olmadıkları gözetilmeksizin sahip oldukları hisseleri oranında paydaşların en az üçte iki çoğunluğu ile karar verilir. Bu karara katılmayanların arsa payları, Bakanlıkça rayiç değeri tespit ettirilerek ve bu değerden az olmamak üzere anlaşma sağlayan diğer paydaşlara açık artırma usulü ile satılır. Bu suretle paydaşlara satış gerçekleştirilemediği takdirde bu paylar, riskli alanlar ve rezerv yapı alanlarında Bakanlığın talebi üzerine, tespit edilen rayiç bedeli de Bakanlıkça ödenmek kaydı ile tapuda Hazine adına resen tescil edilir ve yapılan anlaşma çerçevesinde değerlendirilmek üzere Bakanlığa tahsis edilmiş sayılır veya Bakanlıkça uygun görülenler TOKİ'ye veya İdareye devredilir. Riskli yapılarda ise anlaşma sağlayan diğer paydaşlara veya anlaşma sağlayan paydaşların kararı ile yapılan anlaşmaya uyularak işlem yapılmasını kabul etmek şartıyla üçüncü şahıslara satış yapılınca kadar satış işlemi tekrarlanır.

Hisseleri oranında paydaşların en az üçte iki çoğunluğu ile alınan karara katılmayan maliklerin arsalarının veya arsa paylarının Kanun uyarınca satış yapılınca kadar, anlaşma sağlayan paydaşlar dışındaki üçüncü kişilere satılması durumunda, tapuda tescil işlemi yapılabilmesi için satın alanın elektronik tebligat adresini tapu müdürlüğüne bildirmesi zorunludur. Açık artırma ile satışı yapılacak payların üzerindeki ipotek, ihtiyati haciz, haciz ve intifa hakkı gibi haklar, satış sonrasında satış bedeli üzerinde devam eder. Satış işlemi sonrasında tapu kaydındaki haklar ve şerhler Bakanlığın talebi üzerine tapu müdürlüğünce resen terkin edilir.

(2) Üzerindeki bina yıkılmış olan arsanın maliklerine yapılan tebligatı takip eden otuz gün içinde en az üçte iki çoğunluk ile anlaşma sağlanamaması hâlinde, gerçek kişilerin veya özel hukuk tüzel kişilerinin mülkiyetindeki taşınmazlar için Bakanlık, TOKİ veya İdare tarafından acele kamulaştırma yoluna da gidilebilir. Bu Kanun uyarınca yapılacak olan kamulaştırmalar, 4/11/1983 tarihli ve 2942 sayılı Kamulaştırma Kanununun 3 üncü maddesinin ikinci fıkrasındaki iskân projelerinin gerçekleştirilmesi amaçlı kamulaştırma sayılır ve ilk taksit ödemesi, mezkûr fıkra göre belirlenen tutarların beşte biri oranında yapılır. Tapuda mülkiyet hanesi açık olan taşınmazlar ile mirasçısı belirli olmayan, kayyım tayin edilmiş, ihtilaflı veya üzerinde sınırlı ayni hak tesis edilmiş olan taşınmazların kamulaştırma işlemleri aynı madde hükümlerine tabidir. Bakanlık, TOKİ veya İdare; kamulaştırma işlemlerinin yürütülmesi ve bu Kanun uyarınca yapılacak diğer işlemler için mirasçılık belgesi çıkartmaya, kayyım tayin ettirmeye veya tapuda kayıtlı son malike göre işlem yapmaya yetkilidir. Tapuda kayıtlı malikin ölmüş olması hâlinde Bakanlık, TOKİ veya İdare, kamulaştırma işlemi için mirasçılık belgesi çıkartabileceği gibi, gerekiyorsa tapu sicilinde idari müracaat veya dava yolu ile kayıt düzeltme de isteyebilir. Kamulaştırma için anlaşma sağlanması hâlinde, Bakanlık, TOKİ veya İdare ile ilgililer arasında taşınmazın tescil veya terkinine ilişkin ferağ ve muvafakati de ihtiva eden sözleşme ve uzlaşma tutanağı tanzim edilir ve ilgili tapu müdürlüğüne gönderilerek kamulaştırmanın resen tapu siciline işlenmesi sağlanır.

(3) Anlaşma ile tahliye edilen, yıktırılan veya kamulaştırılan yapıların maliklerine ve malik olmasalar bile bu yapılarda kiracı veya sınırlı ayni hak sahibi olarak en az bir yıldır ikamet ettiği veya bunlarda işyeri bulunduğu tespit edilenlere konut, işyeri, arsa veya dönüşüm projeleri özel hesabından kredi veya mülkiyet ya da sınırlı ayni hak sağlayan ve usul ve esasları Bakanlıkça belirlenen konut sertifikası verilebilir. Bunlardan konutunu ve işyerini kendi imkânları ile yapmak veya edinmek isteyenlere de kredi verilebilir. 20/7/1966 tarihli ve 775 sayılı Gecekondu Kanununa göre yoksul veya dar gelirli olarak kabul edilenlere verilecek olan konut veya işyerleri; Bakanlık, TOKİ veya İdare tarafından, 15/5/1959 tarihli ve 7269 sayılı Umumi Hayata Müessir Afetler Dolayısıyla Alınacak Tedbirlerle Yapılacak Yardımlara Dair Kanunda belirtilen usul ve esaslar uyarınca borçlandırma suretiyle de verilebilir.

(4) Riskli alanlarda, rezerv yapı alanlarında ve riskli yapıların bulunduğu taşınmazlar üzerinde yapımı gerçekleştirilen bağımsız bölümlerin bedelleri, gerekli görüldüğünde, proje uygulamalarının yapıldığı illerdeki mevcut ekonomik durum, tabii afetin ortaya çıkardığı durumlar, konut rayiç ve enkaz bedelleri ile uygulama alanındaki kişilerin mal varlığı ve geliri göz önünde bulundurularak Cumhurbaşkanı kararı ile yapım maliyetlerinin altında tespit edilebilir ve sosyal donatı ve altyapı harcamaları uygulama maliyetine dâhil edilmeyebilir.

(5) Bakanlık;

a) Riskli alanlara, rezerv yapı alanlarına ve riskli yapıların bulunduğu taşınmazlara ilişkin her tür harita, plan, proje, arazi ve arsa düzenleme işlemleri ile toplulaştırma yapmaya,

b) Bu alanlarda bulunan taşınmazları satın almaya, ön alım hakkını kullanmaya, bağımsız bölümler de dâhil olmak üzere taşınmazları trampaya, taşınmaz mülkiyetini veya imar haklarını başka bir alana aktarmaya,

c) Aynı alanlara ilişkin taşınmaz mülkiyetini anlaşma sağlanmak kaydı ile menkul değere dönüştürmeye,

ç) Kamu ve özel sektör işbirliğine dayanan usuller uygulamaya, kat veya hasılat karşılığı usulleri de dâhil olmak üzere inşaat yapmaya veya yaptırmaya, arsa paylarını belirlemeye,

d) 23/6/1965 tarihli ve 634 sayılı Kat Mülkiyeti Kanunundaki esaslara göre paylaştırmaya, payları ayırmaya veya birleştirmeye, 22/11/2001 tarihli ve 4721 sayılı Türk Medenî Kanunu uyarınca sınırlı ayni hak tesis etmeye,

e) Hazine mülkiyetinde olup bu Kanun kapsamında Bakanlığa tahsis edilen taşınmazları; Kanun kapsamında Bakanlıkça kamulaştırılan taşınmazları ve yürütülen uygulamalar neticesinde Bakanlık payına düşen taşınmazları, dönüşüm projeleri özel hesabına gelir elde etmek amacıyla kiralamaya ve satmaya,

f) Bu Kanun kapsamında kullanılmak üzere hazır konut ve işyeri satın almaya ve bunları devretmeye,

g) Rezerv yapı alanlarında gelir ve hasılat getirecek her türlü uygulama yapmaya,

ğ) Parselasyon planlarında, gerekli görülmesi hâlinde varsa ilk uygulamadaki düzenleme ortaklık payı oranını tamamlamak üzere düzenleme ortaklık payı kesintisi yapmaya, yetkilidir. (ç) bendinde belirtilen uygulamalar, Bakanlığın bağlı, ilgili ve ilişkili kurum, kuruluş ve bunların iştirakleriyle ve 4/1/2002 tarihli ve 4734 sayılı Kamu İhale Kanununa tabi idareler ile iş birliği içinde veya gerçek kişiler ve özel hukuk tüzel kişileri ile özel hukuka tabi anlaşmalar çerçevesinde de yapılabilir. Kanun kapsamında Bakanlığın tasarrufuna geçen taşınmazlardan hak sahiplerine verilecek olanlar dışındaki taşınmazların kiralanması ve satışı 8/9/1983 tarihli ve 2886 sayılı Devlet İhale Kanunu hükümlerinden istisnadır. Bakanlık, kiralama ve satış işlemlerine ilişkin usul ve esasları belirlemeye yetkilidir.

(6) Bakanlık, riskli alanlar, rezerv yapı alanları ve riskli yapıların bulunduğu parsellerdeki uygulamalarda faydalanılmak üzere; özel kanunlar ile öngörülen alanlara ilişkin olanlar da dâhil, her tür ve ölçekteki planlama işlemlerine esas teşkil edecek standartları belirlemeye ve gerek görülmesi hâlinde bu standartları plan kararları ile tayin etmeye veya özel standartlar ihtiva eden planlar ve kentsel tasarım projeleri yapmaya, yaptırmaya ve onaylamaya yetkilidir.

(7) Bu Kanun çerçevesinde dönüştürmeye tabi tutulan taşınmazların, üzerindeki köhnemiş yapılar da dâhil olmak üzere, muhdesatı ile birlikte değer tespiti işlemleri ve dönüşüm ile oluşacak taşınmazların değerlemeleri Bakanlık, TOKİ veya İdarece yapılır veya yaptırılır.

(8) Riskli alan ve rezerv yapı alanı dışında olup da bu Kanunun öngördüğü amaçlar bakımından güçlendirilebileceği teknik olarak tespit edilen yapılar için, Cumhurbaşkanınca belirlenen usul ve esaslar çerçevesinde Bakanlıkça dönüşüm projeleri özel hesabından güçlendirme kredisi verilebilir.

(9) Bu Kanun uyarınca tesis edilen idari işlemlere karşı tebliğ tarihinden itibaren otuz gün içinde 6/1/1982 tarihli ve 2577 sayılı İdari Yargılama Usulü Kanunu uyarınca dava açılabilir.

(10) Bu Kanun uyarınca gerçekleştirilecek dönüşüm uygulamalarındaki taşınmazlar, gayrimenkul satış vaadi sözleşmesi veya arsa payı karşılığı inşaat sözleşmesine istinaden yapım işini üstlenen müteahhide devredilmiş ise, malikler adına kat irtifakı kuruluncaya kadar, o yapım işine ait malzeme ve işçilik alacakları hariç olmak üzere, müteahhidin üçüncü kişilere olan borçlarından dolayı bu taşınmazlar hakkında haciz ve tedbir uygulanamaz. Yapım işine başlanmasından itibaren altı ay içerisinde kat irtifakının kurulmaması durumunda, bu taşınmazlar hakkında haciz ve tedbirler uygulanır.

(11) Bu Kanun hükümlerine göre Bakanlığa tahsis edilerek tasarrufuna bırakılan veya Bakanlığın talebi üzerine TOKİ'ye veya İdareye devredilen taşınmazlar üzerinde bu Kanun kapsamındaki uygulamalara bağlı olarak meydana gelen yeni taşınmazlar Bakanlığın, TOKİ'nin veya İdarenin isteği üzerine, kendileri ile anlaşma sağlanan gerçek kişiler veya mirasçıları ile tüzel kişiler adına tapuya tescil olunur.

(12) Bakanlık, bu Kanunda belirtilen iş ve işlemlere ilişkin olarak TOKİ'ye veya İdareye yetki devrine ve bu iş ve işlemlerden hangilerinin TOKİ veya İdare tarafından yapılacağını belirlemeye yetkilidir.

(13) Bu Kanun kapsamındaki alanlarda ve parsellerde gerçek kişiler ve özel hukuk tüzel kişilerinince uygulamada bulunulması durumunda yapım işini üstlenen müteahhitlerin payına düşen bağımsız birimlerin satışı, inşaatın ilerleme seviyesine göre ve İdarenin iznine istinaden yapılabilir. Müteahhit, kendi payına düşen bağımsız birimlerin satışına izin verilmesi için İdareye müracaat eder. İdare, yerinde tespit yaparak veya yapı denetimi sisteminden kontrol ederek inşaatın tamamlanma oranını belirler ve bu oranın %10'u altındaki oranda müteahhitpayına düşen bağımsız birimlerin satışının yapılabileceğini ilgili tapu müdürlüğüne bildirir. Müteahhit payına düşen bağımsız birimlerin, inşaatın tamamlanma oranında veya bu oranın üstündeki bir oranda satışı için bütün maliklerin muvafakati gerekir.

(14) Bu Kanun kapsamındaki alanlarda ve parsellerde; oy birliği ile anlaşma sağlanmasından veya hisseleri oranında paydaşların en az üçte iki çoğunluğu ile karar alınıp bu karara katılmayanların hisselerinin satışından sonra müteahhitten kaynaklanan sebeplerle, bir yıl içinde yeni yapının yapım işine başlanmamış veya yapım işi belirli bir seviyede durdurulmuş ve en az altı aydır.

(15) Projenin bitirilmesini gerektirecek seviyede ekip ve ekipmanla inşai faaliyete devam edilmiyor ise, yapılan sözleşmelerin feshi için hisseleri oranında maliklerin en az üçte iki çoğunluğu ile karar alınabilir. Bu karar ile birlikte Bakanlığa başvurularak yeni yapının yapım işine başlanıp başlanmadığının veya yapım işinin projenin bitirilmesini gerektirecek seviyedeki ekip ve ekipmanla devam edip etmediğinin tespiti istenir.

Bakanlıkça; belirtilen durumların tespit edilmesi hâlinde, müteahhide otuz gün süre verilerek işe başlaması veya devam etmesi gerektiği, aksi takdirde bu sürenin bitim tarihi itibarıyla sözleşmelerin resen feshedileceği ihtar edilir. Bu ihtara rağmen işe başlanmaması veya devam edilmemesi durumunda, ayrıca ihtar çekmeye gerek kalmaksızın otuz günlük sürenin bittiği tarih itibarıyla hak sahipleri ile müteahhit arasında imzalanmış olan gayrimenkul satış vaadi sözleşmeleri ile arsa payı karşılığı inşaat sözleşmeleri ilgililerinin muvafakati aranmaksızın resen feshedilmiş sayılır. Fesih sonrasında, taşınmazların siciline şerh edilmiş olan gayrimenkul satış vaadi sözleşmeleri ile arsa payı karşılığı inşaat sözleşmeleri maliklerin veya Bakanlığın talebi üzerine terkin edilir. Fesih tarihine kadar yapılmış olan işler, devrolunan hisseler, yapılan ödemeler ve diğer hususlarda genel hukuk hükümleri uygulanır. Fesih tarihine kadar müteahhit tarafından hak sahiplerine yapılan kira yardımı ödemeleri hak sahiplerinden geri talep edilemez.

Uygulamaların resen yapılması

Madde 6/A

(1) Yıkılacak derecede riskli olan yapıların bulunduğu alanlar ile kendiliğinden çöken veya zeminin kayması, heyelan, su baskını, kaya düşmesi, yangın, patlama gibi sebeplerle ağır hasar gören veya ağır hasar görme riski bulunan yapıların bulunduğu alanlarda dönüşüm uygulamaları maliklerin ve ilgililerin muvafakati aranmaksızın Bakanlıkça resen yapılabilir veya yaptırılabilir. Uygulama yapılacak alanın sınırları uygulama bütünlüğü gözetilerek belirlenir.

(2) Bu madde kapsamında; riskli yapı tespit masrafları Dönüşüm Projeleri Özel Hesabından karşılanmak suretiyle Bakanlıkça resen yapılır. Riskli olarak tespit edilen yapıların listesi tebliğ yerine kaim olmak üzere, bu yapıların kapısına asılır ve ilgili muhtarlıkta iki gün süre ile ilan edilir. Riskli yapı tespiti işlemi bu ilan ile maliklere şahsen tebliğ edilmiş sayılır. Riskli yapı tespitlerine karşı maliklerce veya kanuni temsilcilerince iki gün içinde itiraz edilebilir ve itirazlar üç gün içerisinde teknik heyetler tarafından incelenip karara bağlanır.

(3) Yapıların tahliyesinin Bakanlıkça verilen süre içerisinde yapılması mecburidir. Verilen sürede yapıların tahliye edilmemesi durumunda, kilitli olan kapıları açmak veya açtırmak da dâhil olmak üzere tahliye ve yıktırmaya yönelik iş ve işlemler, gerektiğinde kolluk kuvvetlerinin de yardımıyla Bakanlıkça yapılabilir veya yaptırılabilir.

(4) Tapuda yapılacak satış, devir, ipotek tesisi işlemleri ile tapu kaydındaki hakların ve şerhlerin terkini işlemleri de dâhil olmak üzere bütün tapu ve kadastro işlemleri, yıkım ve yapıma ilişkin her türlü izin ve ruhsat iş ve işlemleri, diğer idareler nezdinde yürütülecek iş ve işlemler, maliklerin ve ilgililerin muvafakati aranmaksızın Bakanlığın talebine istinaden yapılır.

(5) Uygulama yapılacak alanda bulunan kamu kurum ve kuruluşlarına ait taşınmazlardan dönüşüm uygulamasına dâhil edilecek olanlar ile özel mülkiyete tabi diğer bütün taşınmazlar, Bakanlığın talebine istinaden Hazine adına tescil olunur. Yapılacak yeni yapılar için inşaat ruhsatı Hazine adına düzenlenir ve hak sahiplerine haklarına karşılık gelecek bağımsız bölümlerin devri yapılmıncaya kadar kat irtifakı ile kat mülkiyeti Hazine adına kurulur.

(6) Uygulama yapılacak alan sınırları içerisinde bulunan taşınmazlarla ilgili daha önce imzalanmış olan gayrimenkul satış vaadi sözleşmeleri ile arsa payı karşılığı inşaat sözleşmeleri, bu sözleşmelerin taraflarının ve diğer ilgililerin muvafakati aranmaksızın, uygulamaların Bakanlıkça yürütülmesinin uygun görüldüğü tarih itibarıyla feshedilmiş sayılır. Taşınmazların siciline şerh edilmiş olan gayrimenkul satış vaadi sözleşmeleri ile arsa payı karşılığı inşaat sözleşmeleri Bakanlığın talebi üzerine terkin edilir. Feshedilmiş sayılan sözleşmelere istinaden herhangi bir iş ve uygulama yapılmış ise, bu iş ve uygulamaları yapan müteahhit ile Bakanlık arasında mahsuplaşma yapılır. Kira yardımı ödemeleri hariç olmak üzere, sözleşmenin taraflarından biri tarafından, diğer tarafa herhangi bir ödeme yapılmış ise, taraflar yapılan ödemeleri genel hükümler çerçevesinde karşılıklı olarak birbirlerinden talep etme hakkına sahiptir.

(7) Yapılacak konut ve işyerlerinin niteliği ve büyüklüğü Bakanlıkça belirlenir. Hak sahipliği çalışmaları, hak sahibinin mevcut taşınmazının değeri ile yeni yapıda hak sahibine verilecek konut veya işyerinin değeri gözetilerek yürütülür. Hak sahibinin borçlanması gerekmesi durumunda, hak sahibine verilecek bağımsız birim üzerine borç miktarı oranında ipotek tesis edilir. Hak sahibine düşecek bağımsız bölümün/bölümlerin Bakanlıkça belirlenen süreler içerisinde teslim alınmaması durumunda, hak sahibinin bu bağımsız bölüm/bölümler üzerindeki hakkı sona erer; dönüşümden önceki taşınmazının değeri güncellenerek hak sahibi adına açılacak vadeli bir hesaba yatırılır ve durum hak sahibine bildirilir.

Üçüncü Bölüm

Dönüşüm Gelirleri Ve Diğer Hükümler

Dönüşüm Gelirleri

Madde 7 (1) Bu Kanunda öngörülen amaçlar için kullanılmak üzere aşağıda sayılan gelirler, dönüşüm gelirleri olarak ilgili yıl genel bütçesinin (B) işaretli cetvelinde özel gelir olarak öngörülür ve gelir gerçekleşmesine bağlı olarak gelir kaydedilir:

- a) 9/8/1983 tarihli ve 2872 sayılı Çevre Kanunu gereğince, çevre katkı payı ve idari para cezası olarak tahsil edilerek genel bütçeye gelir kaydedilecek tutarın yüzde ellisi.
- b) 31/8/1956 tarihli ve 6831 sayılı Orman Kanununun 2 nci maddesinin birinci fıkrasının (B) bendine göre Hazine adına orman dışına çıkarılan yerlerin satışından elde edilen gelirlerin yüzde doksanını geçmemek üzere Cumhurbaşkanı kararı ile belirlenen orana tekabül eden tutar.
- c) İller Bankası Anonim Şirketinin Hazine gelirleri ve faiz gelirleri dışındaki banka faaliyetleri ile 26/1/2011 tarihli ve 6107 sayılı İller Bankası Anonim Şirketi Hakkında Kanunun 3 üncü maddesinin birinci fıkrası uyarınca yapacağı faaliyetlerden elde edeceği kârın yüzde ellisi.
- ç) Tapu ve Kadastro Genel Müdürlüğü Döner Sermaye İşletmesi gelirinin yüzde onu.

(2) İlgili yıl genel bütçesinin (B) işaretli cetvelinde özel gelir olarak tahmin edilen dönüşüm gelirleri karşılığı tutar, Bakanlık bütçesinde özel ödenek olarak öngörülür. Ödenek tutarını aşan gelir gerçekleştirmeleri karşılığında ödenek eklemeye Çevre ve Şehircilik Bakanı yetkilidir. Özel gelir ve ödenek kaydedilen tutarlardan yılı içinde harcanmayan kısımları ertesi yıl bütçelerine devren gelir ve ödenek kaydetmeye Cumhurbaşkanı yetkilidir.

(3) Gerektiğinde dönüşüm faaliyetlerinde kullanılmak üzere Bakanlık bütçesinde özel ödenek dışındaki mevcut veya yeni açılacak tertiplere, genel bütçenin diğer tertiplerinden ödenek aktarmaya Cumhurbaşkanı yetkilidir. Bu tertiplerde yılı içinde kullanılmayan tutarlar, ertesi yıla devredilemez.

(4) Bu madde kapsamındaki ödenekler, Bakanlığın merkez muhasebe birimi adına açılacak dönüşüm projeleri özel hesabına aktarılacak suretiyle kullanılır. Bakanlığın dönüşüm faaliyetlerine ilişkin giderleri, 14/7/1965 tarihli ve 657 sayılı Devlet Memurları Kanunu ile diğer kanunların sözleşmeli personel çalıştırılmasına dair hükümlerine bağlı kalınmaksızın çalıştırılacak sözleşmeli personel giderleri de dâhil olmak üzere, dönüşüm projeleri özel hesabından karşılanır. Bu madde kapsamındaki ödenekler ile dönüşüm projeleri özel hesabından yapılacak kullanımlar yılı yatırım programı ile ilişkilendirilmez.

(5) Bu Kanunda öngörülen amaçlar için kullanılmak üzere;

a) Bu Kanunda öngörülen uygulamalar sonucunda elde edilecek her türlü gelir ve hasılat,

b) Bakanlığa tahsis veya devredilen taşınmazlardan imar uygulamasına tabi tutulması sonucunda tapuda Hazine adına tescil edilenlerin satışından elde edilecek gelirler,

c) Dönüşüm projeleri özel hesabından kullandırılan krediler kapsamında ilgili kişi veya kuruluşlarca yapılan geri ödemeler ile bu kapsamda tahsil edilen gecikme zamları,

ç) Her türlü şartlı veya şartsız bağış ve yardımlar ile sair gelirler, dönüşüm projeleri özel hesabına gelir olarak kaydedilir. Birinci fıkranın (c) bendinde belirtilen tutar, hesap dönemini takip eden yılın mayıs ayı sonuna kadar Bakanlığın merkez muhasebe birimine aktarılır. Bu Kanun kapsamındaki uygulamalara yönelik olarak Bakanlık tarafından sağlanacak kredilerin vadesi geçtiği hâlde geri ödenmeyen kısımları, 21/7/1953 tarihli ve 6183 sayılı Amme Alacaklarının Tahsil Usulü Hakkında Kanun hükümlerine göre vergi dairelerince takip ve tahsil edilir.

(6) Bu Kanun kapsamında sağlanması öngörülen krediler ile dönüşüm faaliyetleri kapsamında yapılacak veya edinilecek konut ve işyerlerine ilişkin olarak, hak sahiplerince bankalardan kullanılacak krediler ile Kanun kapsamındaki uygulamalarda kullanılmak üzere İdarece İller Bankası Anonim Şirketinden veya bankalardan kullanılacak kredilere, dönüşüm projeleri özel hesabından karşılanmak üzere faiz desteği verilebilir. Bu işlemlere ve verilecek desteğe ilişkin usul ve esaslar Cumhurbaşkanınca belirlenir. Bu fıkra uyarınca hak sahiplerince bankalardan kullanılacak krediler, 6/12/2012 tarihli ve 6362 sayılı Sermaye Piyasası Kanununun 57 nci maddesi ile 7/11/2013 tarihli ve 6502 sayılı Tüketicinin Korunması Hakkında Kanunun 32 nci maddesinde belirtilen konut finansmanı amaçlı kredilerden sayılır.

(7) Bakanlık, dönüşüm projeleri özel hesabı gelirlerinin elde edilmesi, tahsili ve takibi ile bu hesaba bütçeden aktarılan tutarların dönüşüm faaliyetleri kapsamında yürütülecek hibe veya borç verme programlarında kullanımı, her türlü yapım, mal ve hizmet alımına ilişkin taahhütlere girişilmesi, giderleştirilmesi, muhasebeleştirilmesi, denetimi ve özel hesabın işleyişine ilişkin diğer usul ve esasları, Hazine ve Maliye Bakanlığının uygun görüşünü alarak belirlemeye yetkilidir.

(8) Bu Kanun kapsamında uygulamada bulunacak olan belediyeler, yatırıma ilişkin yıllık bütçelerinin yüzde beşi ile 26/5/1981 tarihli ve 2464 sayılı Belediye Gelirleri Kanununun 80 inci maddesi uyarınca tahsil edilen harç gelirlerinin yüzde ellisini, bu Kanunda öngörülen uygulamalara ayırmak zorundadır.

(9) Bu Kanun uyarınca yapılacak olan ve Bakanlık, TOKİ, İller Bankası Anonim Şirketi, İdare ve dönüşüme konu yapıların inşası işini yüklenen müteahhit ile malik ve en az bir yıldır kiracı veya sınırlı ayni hak sahibi olarak riskli yapıyı kullanan gerçek kişiler veya özel hukuk tüzel kişilerinden birinin taraf olduğu;

a) Bu Kanun kapsamındaki taşınmazların dönüşüme tabi tutulmadan önce ilk satışı, devri, tescili ve ipotek tesis edilmesi işlemleri ile bu Kanun kapsamında yapılacak uygulamalar neticesinde meydana gelen yeni yapıların malik, işi yüklenen müteahhit ve en az bir yıldır kiracı veya sınırlı ayni hak sahibi olarak riskli yapıyı kullanan gerçek kişiler veya özel hukuk tüzel kişilerine ilk satışı, devri, tescili ve ipotek tesis edilmesi işlemleri,

b) Bu Kanun kapsamındaki bir yapıdan dolayı, bu Kanun kapsamındaki parsellerde veya alanlarda veya söz konusu parsel ve alanların dışındaki parsellerde yeni bir yapı yapılması ya da mevcut bir yapının satın alınması veya ipotek tesis edilmesi işlemleri,

c) Kanun kapsamında yapılacak uygulamalar neticesinde meydana gelen yeni yapıların işi yüklenen müteahhit, Bakanlık, TOKİ, İller Bankası Anonim Şirketi, İdare ve bunların iştirakleri tarafından gerçekleştirilecek ilk satışı, devri, tescili ve ipotek tesis edilmesi işlemleri ile bu bentlerde belirtilen yapıların dönüşümüne ilişkin olarak Kanun uyarınca yapılacak diğer işlemler noter harcı, tapu harcı, belediyelerce alınan ücret ve harçlardan, veraset ve intikal vergisi, döner sermaye ücreti ve diğer ücretlerden, bu işlemler nedeniyle düzenlenecek kâğıtlar, resmî dairelerin mal ve hizmet alımlarına ilişkin ödemeler sebebiyle düzenlenen kâğıtlar da dahil olmak üzere damga vergisinden, bu Kanun kapsamındaki yapıların maliklerine ve malik olmasalar bile bu yapılarda kiracı veya sınırlı ayni hak sahibi olarak en az bir yıldır ikamet ettiği veya bunlarda işyeri bulunduğu tespit edilenlere bu amaçlarla kullandırılan krediler dolayısıyla lehe alınacak paralar, banka ve sigorta muameleleri vergisinden istisnadır.

Bu Kanun kapsamındaki iş, işlem ve uygulamalar, Bakanlık, TOKİ, İller Bankası Anonim Şirketi ve İdarenin, sermayesinin yarısından fazlasına sahip oldukları şirketleri tarafından yürütülüyor ise, bu şirketlerce yapılan iş, işlem ve uygulamalarda da bu fıkra da belirtilen vergi, harç ve ücret muafiyetleri uygulanır.

(10) Riskli alanlarda, rezerv yapı alanlarında ve riskli yapıların bulunduğu parsellerde, gerçek kişilerce ve özel hukuk tüzel kişilerinca uygulamada bulunulması halinde, fonksiyon değişikliğine bakılmaksızın, mevcut inşaat alanının bir buçuk katına kadar olan yeni inşaat alanı için belediyelerce harç ve ücret alınmaz.

(11) Bu Kanunda belirtilen iş, işlem ve hizmetlere tahsis edilmiş olan taşınır ve taşınmazlar ile her türlü hak ve alacaklar, para ve para hükmündeki kıymetli evrak, kamu yararı amacına tahsis edilmiş sayılır, bunlar ve bu Kanun kapsamında alınacak teminatlar hakkında her ne suretle olursa olsun haciz ve tedbir uygulanamaz.

(12) Bakanlık, bu Kanun kapsamındaki uygulamalarda kullanılmak üzere dönüşüm projeleri özel hesabından TOKİ, İdare ve İller Bankası Anonim Şirketine kaynak aktarabilir.

(13) İller Bankası Anonim Şirketine aktarılan kaynak, Bankanın gelir ve gider hesapları ile ilişkilendirilmeksizin Dönüşüm Projeleri Özel Hesabının işleyişine ilişkin usul ve esaslar çerçevesinde kullanılır.

(14) Bu maddede öngörülen gelirler, bu Kanunun amaçları dışında kullanılamaz.

Çeşitli hükümler

Madde 8 (1) Bakanlık, TOKİ, İller Bankası Anonim Şirketi ve İdare; danışmanlık, yazılım, araştırma, her tür ve ölçekte harita, etüt, proje, kadastro, kamulaştırma, mikro bölgeleme, risk yönetimi ve sakınım planı çalışmalarını, her tür ve ölçekte plan yapımı ve imar uygulaması işlerini ve dönüşüm uygulamalarını Bakanlığın bağlı, ilgili ve ilişkili kurum, kuruluş ve bunların iştirakleriyle ve 4734 sayılı Kanun kapsamındaki idareler ile akdedecekleri protokoller çerçevesinde 2886 sayılı Kanuna ve 4734 sayılı Kanuna tabi olmaksızın ortak hizmet uygulamaları suretiyle de gerçekleştirebilir.

(2) Riskli yapıların tespiti, tahliyesi ve yıktırma iş ve işlemleri ile değerlendirme işlemlerini engelleyenler hakkında, işlenen fiil ve hâlin durumuna göre 26/9/2004 tarihli ve 5237 sayılı Türk Ceza Kanununun ilgili hükümleri uyarınca Cumhuriyet başsavcılığına suç duyurusunda bulunulur. Riskli yapıların tespiti, bu yapıların tahliyesi ve yıktırılması iş ve işlemlerine dair görevlerinin gereklerini yerine getirmeyen kamu görevlileri hakkında, tabi oldukları ceza ve disiplin hükümleri uygulanır.

(3) Bakanlık, TOKİ ve İdare; bu Kanun kapsamındaki uygulamalarda, uygulama süresini aşmamak kaydı ile 657 sayılı Kanun ile diğer kanunların sözleşmeli personel çalıştırılmasına dair hükümlerine bağlı kalmaksızın, özel bilgi ve ihtisas gerektiren konularda sözleşmeli personel çalıştırabilir. Bu suretle çalıştırılacakların unvanı, sayısı, ücretleri ile diğer hususlar Cumhurbaşkanınca belirlenir.

(4) Bu Kanun kapsamındaki işler ile ilgili olarak valilikler, belediyeler ve diğer kamu kurumları personelinden Bakanlık emrinde geçici olarak görevlendirilenler hakkında 657 sayılı Kanunun ek 8 inci maddesinin birinci fıkrasının (d) bendinde yer alan süre sınırlaması uygulanmaz.

(5) Kanun uyarınca yapılacak anlaşmaların usul ve esasları ile riskli alanlarda ve rezerv yapı alanlarında yürütülecek projelerin yapım işini üstlenecek yapı müteahhitlerinin sahip olmaları gereken asgari iş tecrübesi, teknik donanımı ve mali durumu Bakanlıkça belirlenir. Bu Kanun kapsamındaki alanlarda ve parsellerde yürütülecek projeler için yapım işini üstlenen yapı müteahhidinin yapı ruhsatı alınmadan önce; kapsamı, koşulları ve uygulama esasları Hazine ve Maliye Bakanlığınca belirlenen bina tamamlama sigortası yaptırması veya Bakanlıkça belirlenen diğer teminat ve şartları sağlaması zorunludur.

(6) Riskli yapıların tespit edilmesine veya ettirilmesine dair usul ve esaslar, risklilik kriterleri, riskli yapıların tespitinde ve itirazların değerlendirilmesinde görev alacak teknik heyet ve diğer komisyonlar ile bu Kanunun uygulanmasına dair diğer usul ve esaslar, Bakanlıkça hazırlanacak yönetmelikler ile düzenlenir.

(7) Riskli yapı tespitlerine karşı yapılacak itirazları inceleyip karara bağlayacak teknik heyetlerde üniversiteler tarafından görevlendirileceklerle, fiilen görev yaptıkları her gün için, (4.000) gösterge rakamının memur aylık katsayısı ile çarpımı sonucunda bulunacak tutarda huzur hakkı ödenir. Bir ayda fiilen görev yapılan gün sayısının beşi aşması hâlinde, aşan günler için huzur hakkı ödenmez.

(8) 2/7/2018 tarihli ve 700 sayılı Kanun Hükmünde Kararnamenin 196 ncı maddesiyle bu fıkra da yer alan “Bakanlar Kurulunca” ibaresi “Cumhurbaşkanınca” şeklinde değiştirilmiştir.

(9) Türkiye Radyo-Televizyon Kurumu ile ulusal, bölgesel ve yerel yayın yapan özel televizyon kuruluşları ve radyolar, ayda en az doksan dakika afet, afet risklerinin azaltılması ve kentsel dönüşüm konularında uyarıcı ve eğitici mahiyette yayınlar yapmak zorundadır. Bu yayınlar, asgari otuz dakikası 17:00-22:00 saatleri arasında olmak üzere, 08:00-22:00 saatleri arasında yapılır ve yayınların kopyaları her ay düzenli olarak Radyo ve Televizyon Üst Kuruluna teslim edilir. Bu saatler dışında yapılan yayınlar, aylık doksan dakikalık süreye dâhil edilmez. Bu programlar, Bakanlık, Radyo ve Televizyon Üst Kurulu ile ilgili diğer kamu kurum ve kuruluşları ile bilimsel kuruluşlar, kamu kurumu niteliğindeki meslek kuruluşları veya sivil toplum kuruluşları tarafından hazırlanır veya hazırlatılır. Hazırlanan programların, Bakanlığın olumlu görüşü alındıktan sonra Radyo ve Televizyon Üst Kurulu tarafından radyo ve televizyonlarda yayınlanması sağlanır. Bu fıkra kapsamında yapılan yayınlar için herhangi bir bedel ödenmez. Bu yayınların ve sürelerinin denetimi Radyo ve Televizyon Üst Kurulunca yapılır.

Uygulanmayacak mevzuat

Madde 9 (1) Bu Kanuna tabi riskli yapılar, riskli alanlar ve rezerv yapı alanları hakkında 7269 sayılı Kanunun uygulanıyor olması bu Kanunun uygulanmasına engel teşkil etmez.

(2) 2863 sayılı Kanun ve 5366 sayılı Kanun kapsamındaki alanlarda uygulamada bulunulması hâlinde alanın sit statüsü de gözetilerek Kültür ve Turizm Bakanlığının görüşü alınır.

Dördüncü Bölüm

Diğer Mevzuatta Yapılan Değişiklikler ve Son Hükümler

Madde 10 - 31/8/1956 tarihli ve 6831 sayılı Kanun ile ilgili olup yerine işlenmiştir.

Madde 11 - 20/7/1966 tarihli ve 775 sayılı Kanun ile ilgili olup yerine işlenmiştir.

Madde 12 - 4/11/1983 tarihli ve 2942 sayılı Kanun ile ilgili olup yerine işlenmiştir.

Madde 13 - 2/3/1984 tarihli ve 2985 sayılı Toplu Konut Kanunu ile ilgili olup yerine işlenmiştir.

Madde 14 - 3/5/1985 tarihli ve 3194 sayılı Kanun ile ilgili olup yerine işlenmiştir.)

Madde 15 - 16 -16/6/2005 tarihli ve 5366 sayılı Kanun ile ilgili olup yerine işlenmiştir.

Madde 17 - 3/7/2005 tarihli ve 5393 sayılı Belediye Kanunu ile ilgili olup yerine işlenmiştir.

Madde 18 - 19/9/2006 tarihli ve 5543 sayılı İskân Kanunu ile ilgili olup yerine işlenmiştir.

Madde 19 - 29/6/2011 tarihli ve 644 sayılı Çevre ve Şehircilik Bakanlığının Teşkilat ve Görevleri Hakkında Kanun Hükmünde Kararname ile ilgili olup yerine işlenmiştir.

Madde 20 - Ekli (1) sayılı listedeki kadrolar ihdas edilerek 13/12/1983 tarihli ve 190 sayılı Genel Kadro ve Usulü Hakkında Kanun Hükmünde Kararnamenin eki (I) sayılı cetvelin Çevre ve Şehircilik Bakanlığına ait bölümüne eklenmiştir.

Madde 21 - 26/1/2011 tarihli ve 6107 sayılı Kanun ile ilgili olup yerine işlenmiştir.

Madde 22 - 23/9/1980 tarihli ve 2302 sayılı Kanun ile ilgili olup yerine işlenmiş ve 11/8/1983 tarihli ve 2876 sayılı Atatürk Kültür, Dil ve Tarih Yüksek Kurumu Kanununun 104 üncü maddesi yürürlükten kaldırılmıştır.

Madde 23 - 24/2/1984 tarihli ve 2981 sayılı İmar ve Gecekondu Mevzuatına Aykırı Yapılara Uygulanacak Bazı İşlemler ve 6785 Sayılı İmar Kanununun Bir Maddesinin Değiştirilmesi Hakkında Kanun yürürlükten kaldırılmıştır.

Ek Madde 1 (1) a) Kamu düzeni veya güvenliğinin olağan hayatı durduracak veya kesintiye uğratacak şekilde bozulduğu yerlerde; planlama ya da altyapı hizmetleri yetersiz olan veya imar mevzuatına aykırı yapılaşma bulunan yahut yapı ya da altyapısı hasarlı olan alanlar,

b) Üzerindeki toplam yapı sayısının en az %65'i imar mevzuatına aykırı olan veya yapı ruhsatı alınmaksızın inşa edilmiş olmakla birlikte sonradan yapı ve iskân ruhsatı alan yapılardan oluşan alanlar, fen ve sanat norm ve standartlarına uygun, sağlıklı ve güvenli yaşama çevrelerini teşkil etmek, sağlık, eğitim ve ulaşım gibi kamu hizmetlerinin düzenli bir şekilde yürütülmesini sağlamak amacıyla, Cumhurbaşkanınca riskli alan olarak kararlaştırılabilir. Riskli alan sınırı uygulama bütünlüğü gözetilerek belirlenir.

(2) a) Riskli alan kararına karşı Resmî Gazete'de yayımı tarihinden itibaren dava açılabilir. Uygulama işlemleri üzerine riskli alan kararına karşı dava açılmaz.

b) Birinci fıkranın (a) bendi uyarınca belirlenen riskli alanlarda kamu kaynağı kullanılarak gerçekleştirilen her türlü mal ve hizmet alımları ile yapım işleri, 4734 sayılı Kanunun 21 inci maddesinin birinci fıkrasının (b) bendinde belirtilen hâllere dayanan işlerden sayılır.

Devir ve tahsislerin iptali

Geçici Madde 1 (1) 775, 5366 ve 5393 sayılı kanunlar ile 29/6/2001 tarihli ve 4706 sayılı Hazineye Ait Taşınmaz Malların Değerlendirilmesi ve Katma Değer Vergisi Kanununda Değişiklik Yapılması Hakkında Kanun ve diğer kanunlar kapsamındaki dönüşüm ve iyileştirme uygulamaları için TOKİ'ye, İdareye ve diğer kamu idarelerine tahsis ve devredilmiş olup da tahsisin yapıldığı veya mülkiyetin devredildiği tarihten itibaren iki yıl içinde dönüşüm ve iyileştirme uygulaması başlatılmayan taşınmazların tahsisleri resen kaldırılır ve devir işlemi de iptal edilmiş sayılarak, tapuda resen Hazine adına tescil ve Bakanlığın talebi üzerine bu Kanunun öngördüğü amaçlar için kullanılmak üzere Maliye Bakanlığınca Bakanlığa tahsis edilir.

Gerçekleşen dönüşüm gelirleri

Geçici Madde 2 (1) 7 nci maddede belirtilen dönüşüm gelirlerinden 2012 yılında gerçekleşen tutarlar, genel bütçenin (B) işaretli cetveline özel gelir kaydedilir. Gelir kaydedilen bu tutarlar karşılığında Bakanlık bütçesine özel ödenek kaydetmeye Çevre ve Şehircilik Bakanı yetkilidir.

İdari yaptırımlara ilişkin geçiş hükümleri

Geçici Madde 3 (1) Bu maddenin yürürlüğe girdiği tarihten önce;

- a) Lisanslı kurum ve kuruluşlar tarafından bu Kanuna aykırı olarak işlenmiş fiiller nedeniyle uygulanması gereken idari yaptırımlarda lehe olan hüküm uygulanır.
- b) Lisanslı kurum ve kuruluşlara verilmiş olan uyarı cezaları idari para cezası bakımından tekröre esas alınmaz.

Uygulama işlemlerine ilişkin geçiş hükümleri

Geçici Madde 4

(1) Bu maddenin yürürlük tarihinden önce, belirlenen riskli alanlarda, rezerv yapı alanlarında ve riskli olarak tespit edilen yapıların bulunduğu parsellerde;

a) Bu Kanunun 6 ncı maddesinin ondördüncü fıkrasında belirtilen bir yıllık süre ile altı aylık sürenin hesabında bu maddenin yürürlüğe girmesinden önce geçen süreler de dikkate alınır.

b) Bu Kanunun 6/A maddesinin birinci fıkrasında yer alan şartların Bakanlıkça tespiti hâlinde anılan madde hükmüne göre uygulama yapılabilir.

Yürürlük

Madde 24 (1) Bu Kanunun;

a) 19 uncu maddesinin (a) bendi ile değiştirilen 644 sayılı Kanun Hükmünde Kararnamenin 2 nci maddesinin birinci fıkrasının (e) bendi ile 23 üncü maddesi yayımı tarihinden onbir yıl sonra,

b) Diğer hükümleri yayımı tarihinde, yürürlüğe girer.

Yürütme

Madde 25 (1) Bu Kanun hükümlerini Bakanlar Kurulu yürütür.

6306 Sayılı Kanuna Ek Ve Değişiklik Getiren Mevzuatın Veya

Anayasa Mahkemesi Kararlarının Yürürlüğe Giriş Tarihleri

Değiştiren Kanunun / İptal Eden Anayasa Mahkemesi Kararının Numarası	6306 sayılı Kanunun değişen veya iptal edilen maddeleri	Yürürlüğe Giriş Tarihi
Anayasa Mahkemesinin 27/2/2014 tarihli E.: 2012/87 ve K.: 2014/5 (Yürürlüğü Durdurma) sayılı Kararı	6, 9	1/3/2014
Anayasa Mahkemesinin 27/2/2014 tarihli E.: 2012/87 ve K.:2014/41 sayılı Kararı	3 üncü maddenin birinci fıkrasının yedinci ve sekizinci cümleleri, 4 üncü maddenin birinci fıkrası, 5 inci maddenin beşinci fıkrasının birinci ve ikinci cümleleri	26/7/2014 tarihinden başlayarak üç ay sonra
	3 üncü maddenin dördüncü, yedinci fıkraları, 6 ncı maddenin dokuzuncu fıkrasının ikinci cümlesi ve 10 uncu fıkrası, 8 inci maddenin birinci fıkrası, 9 uncu maddenin birinci fıkrasının birinci cümlesi ve ikinci fıkrası	26/7/2014
6639	24	15/4/2015
6704	3, 4, 6, 7, EK MADDE 1	26/4/2016
Anayasa Mahkemesinin 15/11/2017 tarihli ve E.: 2016/133, K.: 2017/155 sayılı Kararı	3 üncü maddenin yedinci fıkrası	11/1/2018
7139	24	28/4/2018
KHK/700	2, 3, 5, 6, 7, 8, EK MADDE 1	24/6/2018 tarihinde birlikte yapılan Türkiye Büyük Millet Meclisi ve Cumhurbaşkanlığı seçimleri sonucunda Cumhurbaşkanının andiçerek göreve başladığı tarihte (9/7/2018)
7153	2,3, 4, 5, 6, 7, 8, Geçici Madde 3	10/12/2018
7181	6, 6/A, 7, Geçici Madde 4	10/7/2019

B. In - Depth Interview Details

Call Text

Merhaba Sayın *Katılımcı Nâmi - Adı*,

Bu mail bir araştırma çalışmasına katılım çağrısıdır. Bu çağrıyı alma nedeniniz ise mesleki tecrübenizin araştırma kapsamında yapılmak istenen ve sadece 15 dakikanızı ayıracağınız 10 soruluk derinlemesine mülakat için oldukça yeterli olmasıdır. Söz konusu bu araştırma, ODTÜ Deprem Araştırmaları Afet Yönetimi bölümü yüksek lisans öğrencisi Umutcan Üstüncan tarafından yazılan, Doç. Dr. Meltem Şenol Balaban (mbalaban@metu.edu.tr) danışmanlığındaki “Türkiye’deki 6306 Sayılı Kanun’a Dayalı Kentsel Dönüşüm Projelerinin Fiziksel Dirençliliği Üzerine Bir Çalışma” başlıklı yüksek lisans tezi kapsamında yürütülmektedir. Ek ile gönderilen gönüllülük formu sizi araştırma ve koşulları hakkında bilgilendirmek için hazırlanmıştır. Katılmayı kabul ederseniz mülakat soruları da ek ile iletilmiştir. Yazılı geri dönüşleriniz mümkün olabileceği gibi uygun bir vaktinizde çevrimiçi de mülakatı yapabilmek mümkün olabilecektir. Her türlü soru ve öneri için benimle iletişime geçmeniz rica olunur.

Sevgi ve saygılarımla.

Umutcan Üstüncan

Volunteer Form

Gönüllülük Formu

Bu araştırma, ODTÜ Deprem Araştırmaları Afet Yönetimi Bölümü Yüksek Lisans öğrencisi Umutcan Üstüncan tarafından Doç. Dr. Meltem Şenol Balaban danışmanlığındaki “Türkiye’deki 6306 Sayılı Kanun’a Dayalı Kentsel Dönüşüm Projelerinin Fiziksel Dirençliliği Üzerine Bir Çalışma” yüksek lisans tezi kapsamında yürütülmektedir. Bu form sizi araştırma koşulları hakkında bilgilendirmek için hazırlanmıştır.

Çalışmanın Amacı Nedir?

Araştırmanın amacı, 6306 sayılı kanun kapsamında yapılan kentsel dönüşüm çalışmalarında afet riskinin gerçekten ortadan kalkıp kalkmadığını inceleyen bu konu hakkında problem alanlarını saptayıp çözüm önerileri sunmaktır.

Bize Nasıl Yardımcı Olmanızı İsteyeceğiz?

Araştırmaya katılmayı kabul ederseniz, sizden ilettiğim mülakatı doldurmanız beklenmektedir. Yaklaşık olarak 15 dakika sürmesi beklenen bu mülakatta sizlere 10 adet açık uçlu soru yöneltilecek ve bu soruları cevaplamanız istenecektir. Bu soruları boş bırakabilir veya istediğiniz şekilde cevaplayabilirsiniz. Daha sonra içerik analizi ile değerlendirilmek üzere cevaplarınızı bana yönlendireceksiniz. (not: yazılı gönderemediğiniz koşulda sözlü mülakat için çevrimiçi mülakat isteğiniz olursa belirtmeniz durumunda uygun bir gün ayarlanabilecektir.)

Sizden Topladığımız Bilgileri Nasıl Kullanacağız?

Araştırmaya katılımınız tamamen gönüllülük temelinde olmalıdır. Çalışmada sizden kimlik veya kurum belirleyici hiçbir bilgi istenmemektedir. Cevaplarınız tamamıyla gizli tutulacak ve sadece araştırmacı tarafından değerlendirilecektir. Katılımcılardan elde edilecek bilgiler toplu halde değerlendirilecek ve bilimsel yayımlarda kullanılacaktır.

Katılımlınızla ilgili bilmeniz gerekenler:

Mülakat, genel olarak kişisel rahatsızlık verecek sorular veya uygulamalar içermemektedir. Ancak, katılım sırasında sorulardan ya da herhangi başka bir nedenden ötürü kendinizi rahatsız hissederseniz mülakatı bırakmakta serbestsiniz. Böyle bir durumda mülakatı uygulayan kişiye doldurmadan bırakmak istediğinizi söylemek yeterli olacaktır.

Araştırmayla ilgili daha fazla bilgi almak isterseniz:

Mülakat sonunda, bu çalışmayla ilgili sorularınız olursa cevaplanacaktır. Bu çalışmaya katıldığınız için şimdiden teşekkür ederiz. Çalışma hakkında daha fazla bilgi almak için yüksek lisans öğrencisi Umutcan Üstüncan ile iletişim kurabilirsiniz.

Yukarıdaki bilgileri okudum ve bu çalışmaya tamamen gönüllü olarak katılıyorum.

(Formu doldurup imzaladıktan sonra uygulayıcıya geri veriniz).

İsim Soyad

Tarih

İmza

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DUMLUPINAR BULVARI 06800
ÇANKAYA ANKARA/TURKEY
T: +90 312 210 22 91
F: +90 312 210 79 59
ueam@metu.edu.tr
www.ueam.metu.edu.tr

Sayı: 28620816 / 361

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Konu : Değerlendirme Sonucu

Gönderen: ODTÜ İnsan Araştırmaları Etik Kurulu (İAEK)

İlgi : İnsan Araştırmaları Etik Kurulu Başvurusu

Sayın Meltem Şenol BALABAN

Danışmanlığını yaptığınız Umutcan ÜSTÜNCAN'ın "TÜRKİYE'DEKİ 6306 SAYILI KANUNA DAYALI KENTSEL DÖNÜŞÜM PROJELERİNİN FİZİKSEL DİRENÇLİLİĞİ ÜZERİNE BİR ÇALIŞMA" başlıklı araştırması İnsan Araştırmaları Etik Kurulu tarafından uygun görülmüş ve **361-ODTU-2021** protokol numarası ile onaylanmıştır.

Saygılarımızla bilgilerinize sunarız.

Dr.Öğr.Üyesi Ali Emre TURGUT
İAEK Başkan Vekili

In – Depth Interview
Derinlemesine Mülakat

1. 6306 Sayılı Afet Riskli Alanların Dönüştürülmesi Hakkında Kanun ile kentsel dönüşüme konu olan alanlar sizce genellikle hangi gerekçeyle, neye göre seçilmektedirler?
2. Ülkemiz birçok doğa ve insan/teknolojik kaynaklı tehlikelere maruzdur. Çoğunlukla afetlere dönüşen bu tehlikeler sizce kentlerimizde neden yüksek risklere sebep olurlar? Sizce bu kentsel riskleri artıran ana faktörler nelerdir?
3. Kentsel risklerin yüksek olduğu alanlar sizce hangi kesimler tarafından barınma alanı olarak tercih edilmektedir? Bu tercihin ana nedenleri sizce neler olabilir?
4. Sizce kentsel dönüşüm sürecinin sağlıklı ilerlemesi ve güvenli/sağlı yaşam alanları yaratabilmek için dikkate alınması gereken temel prensipler nelerdir?
5. Uzmanlık alanınızın kentsel dönüşümdeki rolü ve müdahale alanları sizce nasıl olmalı? Sizce sistem içinde yeterli bir rol müdür? Yetersizse sizce nasıl olmalı? Neler yapılırsa bu rolünüz ile daha fazla katkı sağlayabilirsiniz?

6. 6306 Sayılı Kanun kapsamında yapılan kentsel dönüşümün güçlü yanları ve fırsatları nelerdir?

7. 6306 Sayılı Kanun kapsamında yapılan kentsel dönüşümün zayıf yanları ve tehditleri nelerdir?

8. Türkiye'de 6306 Sayılı Kanun kapsamında “Riskli Bölgelerde” yürütülen kentsel dönüşüm projeleri, asıl amacına uygun olarak afet riskini “tüm kentte” fiilen ortadan kaldırarak daha dirençli kentler yaratıyor mu? Cevabınız hayır ise bu alanlarda eksikliğini gördüğünüz ya da yanlış olduğunu düşündüğünüz konular nelerdir?

9. Yukarıda bahsettiğiniz sorunlar ve çözümler sadece yaşadığınızı bölgeye özgü özellikler midir? Cevabınız evet ise sizi bu şekilde düşündüren faktörler nelerdir? Cevabınız hayır ise başka kentlerde de gözlemlenebilen bu yaygınlığa neden olan unsurlar nelerdir?

10. Bu mülakat bağlamında eklemek istediğiniz diğer düşünceleriniz nelerdir? Eklemek istediğiniz önemli gördüğünüz konular varsa burada belirtebilirsiniz.

Katkınız için teşekkür ederim.

C. Documents of Case Study Areas with the Permission to Share

Urban design project of Altıkaraağaç



Urban design project of Demetevler

