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Araştırma Makalesi / Research Article

Urban Regeneration Projects to Achieve Sustainable Urban Land Development, Konya Case Study

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Urban land policy; Urban regeneration; Land management; Sustainable planning

Abstract

In Turkey, urban regeneration projects are being used as an important land policy instrument to achieve sustainable development. However, the failure to meet residents' expectations and to establish a sound legal framework, together with a and failure to establish an effective dialogue with the stakeholders, all have implications for the sustainability and eventual success of these policies. Firstly, this study is an examination of urban land development policies in Turkey, focusing on problems of urbanization and land management. Subsequently, urban regeneration projects in Konya, Turkey, were studied from an urban land development perspective and a proposal made for spatial objectives in an area planned for urban regeneration. The purpose of this study is to present spatial solutions the physical and social structural problems experienced in the old city center of the province of Konya in Turkey with urban regeneration applications, which are implementation methods for sustainable estate policies. For this purpose, firstly the methods that are used in Turkey for implementation of urban estate policies were examined in the light of the literature. Then, the urbanization-related problems in the selected site of urban regeneration were presented, and spatial solution recommendations were made in relation to renewal of the physical structure and increasing the quality of life. This study is important in terms of presenting and discussing the process of creating spatial-functional goals for producing sustainable estate policies and urban regeneration applications related to the urban sprawl, property issues and social structure problems that occur in city centers that are getting old.

Sürdürülebilir Kentsel Gelişmenin Elde edilmesinde Kentsel Dönüşüm Uygulamaları, Konya Kenti Örneği

Anahtar kelimeler
Kentsel arsa politikaları; Kentsel dönüşüm; Arazi yönetimi; Sürdürülebilir planlama

Öz

Türkiye'de kentsel dönüşüm uygulamaları, sürdürülebilir gelişmenin elde edilmesinde önemli bir arazi kullanım politikaları aracı olarak kullanılmaktadır. Ancak uygulamalarda yaşayanların beklentilerine cevap verilememesi, yasal dayanağın oluşturulamaması, katılımcı diğer gruplarla diyaloglar kurulamaması gibi sorunlar uygulamaların sürdürülebilirliğini ve başarısını etkilemektedir. Bu çalışmada, öncelikle Türkiye'de kentsel arsa üretimi politikaları kentleşme sorunları ve arazi yönetimi kapsamında değerlendirilmiştir. Ardından kentsel arsa üretiminde uygulama yöntemlerinden olan kentsel dönüşüm uygulamaları Türkiye/Konya örneğinde ele alınmış ve planlanan bir kentsel dönüşüm alanına yönelik mekânsal hedefler oluşturulmuştur. Bu çalışmada amaç, Türkiye'nin Konya ili eski kent merkezinde yaşanan fiziki ve sosyal yapı sorunlarına sürdürülebilir kentsel arsa politikaları uygulama yöntemlerinden olan kentsel dönüşüm uygulamaları ile mekânsal çözümler sunmaktır. Bu amaç kapsamında öncelikle Türkiye'deki kentsel arsa politikalarının uygulanmasında kullanılan yöntemler literatür kapsamında incelenmiştir. Ardından seçilen kentsel dönüşüm sahasında kentleşme sorunları ortaya konularak

fiziksel yapının yenilenmesi ve yaşam kalitesinin artırılmasına ilişkin mekânsal çözüm önerileri geliştirilmiştir. Bu çalışma, eskiyen kent merkezlerinde oluşan çarpık kentleşme, mülkiyet sorunları ve sosyal yapı sorunlarına ilişkin kentsel dönüşüm uygulamaları ile sürdürülebilir arsa politikaları üretilmesi için mekânsal-işlevsel hedeflerin oluşturulması süreci ve sürecin sorunlarının tartışılması açısından önem taşımaktadır.

1. Introduction

The current globalization process, which has been accompanied by social, economic and technological developments in Turkey, as well as other parts of the world, has also instigated urban change and urban regeneration (Aksu 2007). Although some aspects of this change are positive, misguided or inefficient land policies have resulted in the emergence of cities with unplanned, unhealthy urban areas that are lacking the necessary infrastructure.

The failure to create livable urban structures, along with the destruction of natural, cultural and historical assets and the failure to meet the needs of residents, has given rise to the concept of 'sustainable development' in international, local and academic platforms, and studies on how it can be achieved. Sustainable development refers to striking a balance between social justice, quality of environment and economic development (Lee 2008; Zheng et al. 2014). One of the prerequisites for establishing this balance is the development and implementation of a 'sustainable urban land development' policy.

Legislation on urban land development in Turkey comprises both land policies and methods for their implementation. Land policies in Turkey have specific shortcomings in terms of land administration and the adopted land management model (Yomralıoğlu 2012; Ülger 2012). These policies have resulted in an unremitting expansion of the real estate market and increases in the price of land, leading to dominance of commercial concerns, while creating cities with many social and spatial inequalities (Pixova 2013). Urban regeneration projects have been one of the most popular instruments in academic and policy circles. The aim of urban regeneration projects is to create livable cities, which are able to compete in regional and international arenas, and that require an interactive and complex planning process (Roberts and Sykes 2004; Demirsoy 2006). These projects are usually very comprehensive and highly complex, requiring close attention being paid to social, economic and environmental aspects, in order to create sustainable and successful results (Roberts 2000; Akkar 2006).

For sustainable planning, urban regeneration projects in Turkey, urban land and buildings need to be steered towards higher-profit uses (Rothenberg 1969), make use of urban design to resolve lower-level problems encountered in planning (Zheng et al. 2014), achieve a more efficient distribution in terms of resource allocation and land use (Lee 2008), and prevent illegal occupancy. In terms of environmental quality, preservation of nature, the development of cultural values and quality of life is necessary for environmental sustainability. To achieve social justice in these processes it is important to preserve social harmony (Degen and Garcia 2012), to prevent social conflict by encouraging participation (Zheng et al. 2014), to ensure the participation of residents, of all ages, in projects that involve different aspects of urban regeneration, such as gentrification (Grabkowska 2015), and improving interaction between all the stakeholders (Tweed and Sutherland 2007). In addition, it must be ensured that plans reflect social structures, while local and regional values concerning urban identity are emphasized in the planning process. Once the project is completed, it is important that the regeneration serves the interests of the local community by creating new job and employment opportunities (Turcu 2012; Cuthbert and Dimitriou 1992; Queensland government 2004)

Literature on urban regeneration projects aiming for sustainable urban land development in Turkey mostly focuses on Istanbul, Ankara and Izmir. For example, Batuman (2013) examined the urban profile of Ankara in terms of planning, transportation, local administration, house building and urban regeneration, and Özdemirli (2014) focused on the importance of alternative strategies developed by government bodies for urban renewal and urban policies. Eğercioğlu et al. (2016) examined conservation projects in Tire, Izmir, with regard to the dynamics of urban development and urban regeneration. Yetişkul et al. (2016) examined the emergence of neighborhood associations in the context of urban renewal in Istanbul. Previous studies have focused on land policies, urban design expectations and social cohesion in projects implemented in conservation sites or squatter areas.

The present study provides a detailed examination of the urban regeneration -related land policies of the Meram Municipality of Konya, which is an important center of religious tourism in the heart of Anatolia. The first section reviews urban land policies and projects in Turkey. The second section focuses on the current land regeneration projects of Meram Municipality in Konya. Unlike other studies in the literature, the present study uses land and survey analyses to make recommendations for sustainable urban land development and to propose spatial objectives for a planned urban regeneration project concerning a historically and culturally significant area at the heart of the city, which is accorded a special place in the planned vision for the city but currently experiences problems with illegal construction and ownership disputes.

2. Urban Land Policies: Importance and Necessity for Turkey

The earliest examples of 'urban policy' were applied in the United States of America but, over time, there were an increasing number of different examples in western countries that constituted the field of application of this new social organism.

In Turkey, particularly since the most recent regulations were constituted, there has been a rapid change and regeneration in our medium and large cities; however, the truth is that these developments are not based on urban area policies for sustainable development and only provide a quick solution for current needs. In this process it is very important to determine the situation of current lands and provide a planned exploitation program, in order to prevent land being wasted. In the management of this process, urban land policies can only be applied effectively if they are directed using multi-directional, sound, and state approved policies (Esina 2009).

Land administration systems that are created by the state provide the infrastructure that is necessity in the world and in Turkey for sustainable implementation and direction of urban estate policies (Enemark et al. 2014). According to the World Bank and FIG, a land administration system to be created towards urban estate policies should provide the property rights for everyone, guarantee these rights, be innovative, flexible, inexpensive and constantly developing (Muggenhuber et al. 2011; Enemark, et al. 2014; Lemmen et al. 2017).

The scope of a land administration system varies based on the rights, responsibilities and limitations that will be provided by the system (Ponsard and Touzani 2017). A Fit-For-Purpose approach for Land Administration is designed for an inexpensive, time-efficient, flexible, scalable, participatory structure which preserves natural resources. The Land Administration Domain Model (LADM) consists of standards that provide fast production for software by creating a vocabulary that is standardized for land administration on the conceptual level (Lemmen et al. 2017). The Social Tenure Domain Model (STDM), is a specified and restricted type of LADM. The Core Cadastral Domain Model (CCDM) covers the process of land registry and cadaster (Ponsard and Touzani 2017). All these systems help create a context regarding the management and direction of urban estate policies about the population increase and

economic, environmental and social structure problems in the urban area.

As the population of a city increases, the necessity for land and housing to accommodate them increases in parallel; however, land development by means of insufficient and partial land policies has become a very significant problem in the development process of Turkish cities. The inadequacy in the development of improved lands ready for construction results in developments being built without the necessary infrastructure, squatting, a rapid increase in land speculation, site selection problems for workplaces, insufficiency of urban public services and, as a consequence, urban development consisting of unhealthy places (Gökçen 2004). Consistent urban land policies will make it easier for them to be employed in a healthy way. For healthy and regular urbanization, meeting infrastructure and housing needs, as a requirement of rapid urbanization and solving the land problem associated with squats are the main objectives of land policies in Turkey. The best output for a bona fide land policy is to give construction land to urban citizens for building their houses. For this reason, the inspection of urban development, limiting the use of agricultural land for urban purposes, the prevention of extreme and artificial increases and speculation in land prices, to give the profit on land to public management "that causes this profit" are the main objectives of urban land policies (Tokman et al. 2004; Yomralıoglu 2012; Türker 2012; Yomralıoglu et al. 2012).

It is well established that urban areas are not only for providing housing areas for settlement; in cities this land also has many other functions (industrial areas, green fields, open areas, etc.). The more a city expands, the variety of these functions increases, different cultures come together, and integration becomes a big problem. For this reason, the items listed below should be addressed within the scope of urban land development for the lands with an existing infrastructure:

- Meeting requirements and demands as quickly as possible.
- Opening built up areas that will not limit the protection and development of natural resources and can that will have a positive impact on economical and social developments.
- Protection of natural and environmental values and generating sustainable urban development
- Increasing efficiency and urban quality in the presentation of urban infrastructure efficiency.

Urban area needs should not only be seen in terms of low income groups, there should be a land policy that meets the requirements of each income group. In particular, for developments in metropolitan areas to be controlled, the availability of various types and amounts of land for each requirement should be planned from the beginning. Urban areas to be developed should appeal to wealthy, middle class, working class families; cooperatives, building companies, trading companies, land investors, private offices, public and quasi public establishments; recreation, vacation and tourism establishments. The demands and priorities of all these groups should be taken into consideration. It is essential to create an "urban land stock" in the areas that are suitable for housing in the future and their surroundings. The aim of a land stock policy for housing should be to prepare land with appropriate pricing structures for housing with real estate swap/changing (Ayten, 2004). In this "pre-urbanization" process, acquisition by the public of as many stocks as possible and allocation of these lands to low income groups and public needs when necessary will be a balancing and speculation preventing factor for real estate market.

Urban land development should also contribute to urban quality and a city's image and should be attentive to the environment and environmental values. The protection of natural sources and ecology should be responsibly undertaken. In order to encourage sustainable housing markets and land development, a public policy including spending, tax, fiscal and planning policies should be created and economic safeguards should be developed to

encourage sufficient housing and land presentation (Inam et al. 2012).

2.1 Implementation of urban land policies in Turkey

It is essential to develop urban areas to meet the needs of development and regeneration in cities. In today's Turkey, the development of the country's cities has been adopted within a sustainability concept and construction plans are applied on the basis of the following methods depending on the needs or conditions of livable urban place creation:

- eminent domain method,
- applications on parcels considering landholder demands,
- land readjustment method, and
- urban regeneration applications (Yıldız 2014; Uzun et al. 2012).

Applications in eminent domain method

The eminent domain method is the purchasing of private real properties by paying the cost with the "buy-in method" to reserve them in the construction plans for official buildings and facilities, schools, roads, squares, car parks, green spaces, playgrounds, open markets, abattoirs, shopping malls, bus or train stations, etc. The application of the eminent domain method includes, private properties being appropriated for the public interest (Uzun 2000). This situation results in inequality and is detrimental to property rights. Moreover, public institutions have difficulty in paying the eminent domain price and real estate property owners do not sufficiently benefit from the price increases that come with the construction plan.

From this point of view, eminent domain applications are harmful to social justice, and property owners are obliged to renounce their property rights to enable a healthy execution of eminent domain applications for the public interest.

Applications done on request of real estate property owner

If administrations, which are responsible for application of plan, cannot or do not produce fundamental solutions on construction, property owners are obliged to produce solutions themselves for using their lands in regulatory compliance. Applications done on request of real estate property owners are expressed within the scope of;

- Assemblies and separations for agriculture sharing on out of plan area,
- Assemblies and separations on planned area for creating construction parcel

As these applications are done on request of property owner and parcel units, they do not have an integrative plan application approach. This situation causes plans unable to be open for usage in at least one construction island and simultaneously as well as a delay in transportation and infrastructural services.

Land readjustment method

It is important to put into use city plans for using in proper place and time for sustainable urbanization as well as producing them within principles. Land readjustment, which is one of the construction plan application methods, determines the area to be reserved for the public and enables it to be put into use with a balanced and free of charge contribution and, on the other hand, it creates the infrastructure of regular housing in at least one construction island.

In Turkey, land readjustment is defined in Article 18 of the Construction Law No. 3194 as follows: "Municipalities are authorized to assemble lots and lands within the construction zone with each other, public lands, to separate them to blocks and layouts suited for construction plan, to divide them to right holders according to individual, shared or condominium property provisions and to carry out an ex officio registration of them, without seeking for their owners' consent".

In contradiction to eminent domain and application methods request on property owners, land readjustment is a scientific method study that does

not violate property owner's rights, considers the plans as a whole instead of partial considerations, solves the problem of insufficient facility areas with an integrated approach, and distributes the unearned increment that come up with the construction plan in a balanced way.

As it has an integrated application approach on the land, which was determined in the plan and includes at least one construction island, it still needs improvements on the legislations for supporting contemporary development of settlements and to prevent unplanned urbanization.

Of these methods, eminent domain creates ownership issues and taking action at the request of property owners creates problems with infrastructure and planning integration. The method of land and plot arrangement, on the other hand, has scientific backing and is ideal for sustainable city planning (Figure 1). Criticism directed at these methods can be classified as follows:

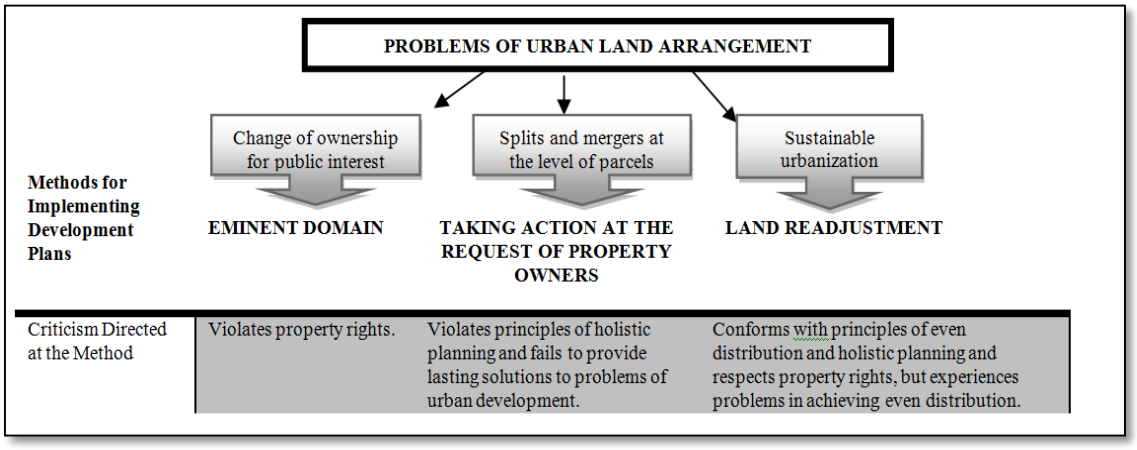

Figure 1. Criticism directed at implementation of urban land policies

Urban regeneration applications

In today's Turkey, except for special terms or necessities, responsible administrations for plan application produce ready to build construction parcels using the land arrangement applications and there have been successful studies in this regard. However, in a lot of developed countries, including Turkey, the construction of urban environments only using technically based applications will not be adequate; additionally, urban identity and urban dynamics plans should be considered to meet social expectations preeminently and they have to be actualized (Ataov and Osmay 2007). For these reasons, urban regeneration projects came to the fore as they provide a comprehensive vision and allow taking comprehensive action, adopting a holistic approach to urban problems and aiming to find lasting solutions to economic, physical, social and environmental issues in the transformed area (Turok 2005).

Urban regeneration means revitalizing a lost economic activity, creating social cohesion in areas previously plagued by social exclusion, and reestablishing the ecological balance or environmental quality where they had been destroyed (Roberts and Sykes 2000). In addition to the city centers that started to experience a collapse in 1850s with the Industrial Revolution, the need for reconstruction of the cities that were destroyed after the World War in 1950s started the process of urban regeneration. In the years after 1960, the need for social housing has frequently been observed in both scientific studies and practice due to reasons such as improvement of the historical texture by preservation and reanimating old city centers.

The first regulations about zoning and urban planning in Turkey (then the Ottoman Empire) started with Ebniye Nizamnamesi [Building Regulations] in 1848 (Int Refr. 1). In 1923, Ankara became the capital city and needed to be

restructured with the new identity it gained. Therefore, the urban texture of Ankara was subjected to a regeneration by the zoning plan prepared by the German architect Herman Jansen. In general, the laws between 1920 and 1950 were focused on preventing fires, improvement and maintenance and organization of roads.

The first immigration movements in Turkey have started especially after 1950 began after World war II (Tekeli 2010) and the plans done afterwards are poor as population movements could not predicted correctly. In the urban boundary, illegal housing, which is lack of infrastructure and social equipment areas, and sheltering different social and cultural regions has started to arise. Small size contractors have controlled the construction and slums, which have been built by urban to meet their housing needs, in Turkey between 1960-1980 (Batuman 2013). With the developments in industry and service sectors in 1990s, site selection factors became more important and strategies for balanced urban development were created. In the period of 1980-2000, legislation-related arrangements (Slum pardons, Zoning Law and Mass Housing Law) were made. Additionally, the authorities in the central government were passed to local governments. Urban Regeneration was perceived as a new method of zoning planning or increasing capital for local governments.

Natural disasters such as the earthquake in 1999 were another factor that gave rise to the need for urban regeneration. In Turkey urban regeneration applications has been increasing since 2002 with a range of construction activities (Afacan 2015). The legislation and practices that were prepared by 2003 regarding urban regeneration brought about debates. The first practices in these years included formation of modern residential areas with high quality of life instead of the gecekondu areas that harmed the identity of Ankara as the capital and its appearance. The Urban Regeneration Project for North Ankara Entrance was the first project in this scope.

The destructive impact of the earthquake that was experienced in the province of Van in 2011 led the legal structure regarding urban regeneration to be reconsidered. Recently in 2012, "The Law on the Regeneration Areas under the Risk of Disaster, No. 6306" has been a costruction application device in polishing up existing constructions for the risk of earthquake and creating high welfare cities. This law creates a legal frame for urban regeneration applications while providing performance for structuring in countrywide in a fast and collective way (Güzey 2016).

The advantages listed below should be highlighted within the urban regeneration applications compared to other application methods (Göksu 2003):

- Healing of existing construction plan values on old contruction plan fields,
- Activation of land reservations in the city,
- Re opening of left or bedraggled urban areas for usage by changing plan values,
- Usage and contruction of empty parcels between existing contructions,
- Development of technical base area usage instead of development of city in third dimension,
- Modernization and repairing of the houses and healing of house surroundings,
- Protection and keeping alive of urban, environmental and natural values,
- Preventing consumption of public lands for producing fields,
- Preventing budget spending consisting of socialization,
- Producing of protection aimed plans with new approaches like construction right transfer, determining the values of real estates in free market, hiding property right for the benefit of law and preventing limitations on property right which comprises by the feature of real estate (rural, cultural values),
- Gaining field feature to the rural areas which arises in the period of producing rural area, various privatize, preventing unfair gains, which arises by the changing of property rights, good assessment of repletion and space rates in rural areas.

3. Urban Regeneration Projects in Turkey Within the Context of Land Policies:

The Case of Konya

Konya is a metropolitan city in the Central Anatolian region of Turkey, and a significant center of industry, commerce, agriculture and religious tourism (Figure 2).

Figure 2. General view of Konya (Int Refr. 2, 3, 4, 5, 6, 7, 8, 9)

The new economic sectors, increasing religious tourism activity and the increase in the number of universities have all contributed to a rise in the population density of the city (Figure 3). It is also one of the cities most preferred by Syrian immigrants for settlement.

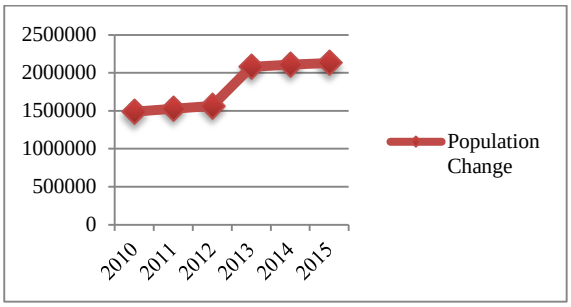

Figure 3. Population change of Konya (Int Refr. 10)

Replanning of Konya's urban areas in response to this change, and creating land policies that take this context into consideration are crucial. The city center of Konya has three municipalities. Of those, Meram Municipality is creating important projects that shape land policies. Meram Municipality currently runs projects that aim to eliminate unplanned and illegal construction, and has social housing projects (Figure 4), run in partnership with the Housing Development Administration (TOKI), that are either completed or under way.

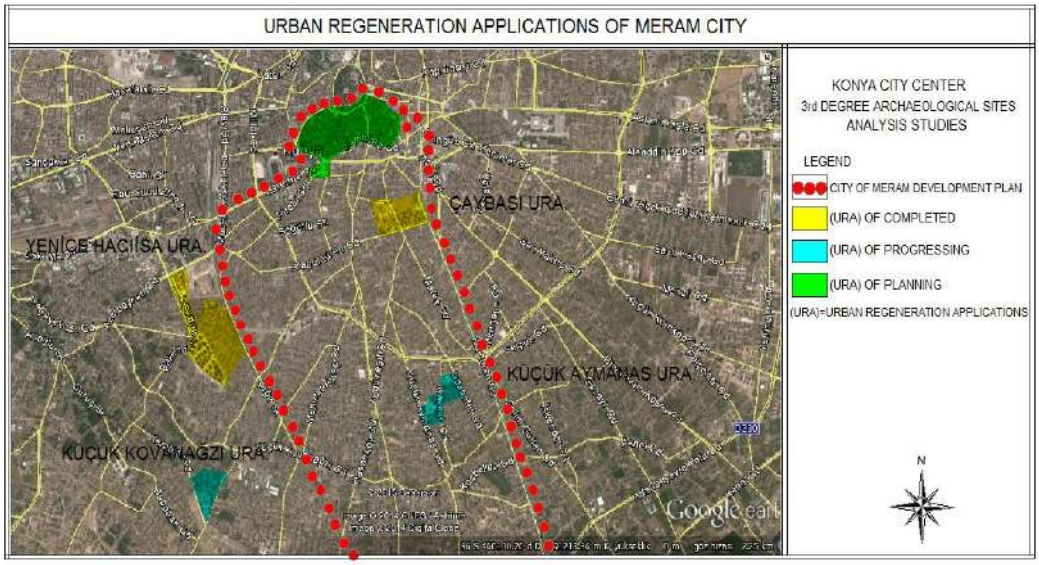

Figure 4. Meram Municipality urban regeneration projects (Bozdağ 2015) (Satellite view 2014)

Urban regeneration projects and the current status of the sites involved were examined in detail (Table 1).

Table 1. An evaluation of the urban regeneration projects in Meram Municipality

URBAN REGENERATION PROJECTS (URA) OF MERAM MUNICIPALITY				
Projects	**Caybasi URA (1st stage)**	**Yenice ve Haciisa URA**	**Kucuk Aymanas URA**	**Kucuk Kovaagzi URA**
Project process	The project was completed.	The project was completed.	Process of project planning and agreements towards owners were completed. The first stage of the application process was completed and title deed transfers were made.	Process of project planning and agreements towards owners were completed. Application process continues.
Based legislation	Article 73 of the Law No. 5393	Article 2 of the Law No. 5393	Article 69 and 73 of the Law No. 5393	Article 69 of the Law No. 5393
Land use of the Project Area	Residential and commercial	Residential and commercial	Residential and commercial	Residential and commercial
Land use after the planning	Residential, educational institutions and dormitory	Residential, commercial, religious facilities, social and cultural areas, parking	Residential, Education Facility and Sports Facility	Residential, Park, Commercial and Education Facility
Property condition of the project area	There are issues of illegal structures and very small parcels which is contrary to the principles of urban planning. Also Caybaşı is one of the oldest neighborhood in the city.	There are issues of illegal structures, unplanned and settlements.	There are issues of illegal structures and joint tenancy.	There are issues of illegal structures and unplanned urbanization.
The changing of floor area ratio in the zoning plan.	**Before project** Floor area ratio: 1.60	Floor area ratio: 1.8	Floor area ratio: 1.60	Floor area ratio: 0.50
	After project Floor area ratio: 2.10	Floor area ratio: 2	Floor area ratio: 1.80	Floor area ratio:1.30
Project vision	Illegal structures were demolished and new constructions have been established. Residential and commercial land uses have been ctreated.		The aim of the project is to create a healthy living space in urban areas.	

An examination of the projects that are completed and underway (shown in blue and yellow, respectively) shows that the projects contribute to physical regeneration of the city as they regulate unplanned and illegal construction. However, these projects have the following planning and physical structure problems:

- In terms of land use, they are housing-oriented and show little diversity.
- There is an exclusive focus on ownership and building renewal.
- The only instrument used is changes in floor area ratios.

- Boundaries of project sites fail to integrate them with the rest of the city. Boundaries of project sites split the city into discontinuous parts.
- The legal framework for the projects is provided by Articles 2, 69 and 73 of the Law No. 5393. The article in question provides a comprehensive definition of the sites where urban regeneration projects can be implemented, but provides only size-based criteria for designating a site as an urban regeneration and development site. In addition, it contains no provisions on what criteria to use when identifying regions of the city that need renewal, and who is responsible for this task.

'Mevlana Urban Regeneration Project' (Figure 3.3 shown in green) is a planned project. This project has the following characteristics that distinguish it from the other projects:

- Being located at the center of the city, it has important implications for the image, identity and attractiveness of the city.

The city center is in urgent need of regeneration because of ownership disputes, historical, economic and environmental concerns about the site, and because it is plagued by social collapse.

- The legal framework for the project is provided by the Law No. 6306 on Urban Regeneration of Areas Under the Risk of Disasters. This law provides for the improvement of the existing building stock against disasters, renewal of areas of collapse, improvement of living conditions, and the organization and rapid implementation of projects without too much red tape.

Mevlana urban regeneration project is crucial for restructuring the city center of Konya. Therefore, a land analysis was conducted first to identify potentials and current problems in the project area. Then, participants residing in the project site were asked about their views on the process of regeneration. Finally, recommendations were made for Meram Municipality in Konya to devise sustainable urban land policies.

3.1 Analysis of land use in project area

Firstly, land use potentials were identified in the project area (Figure 5).

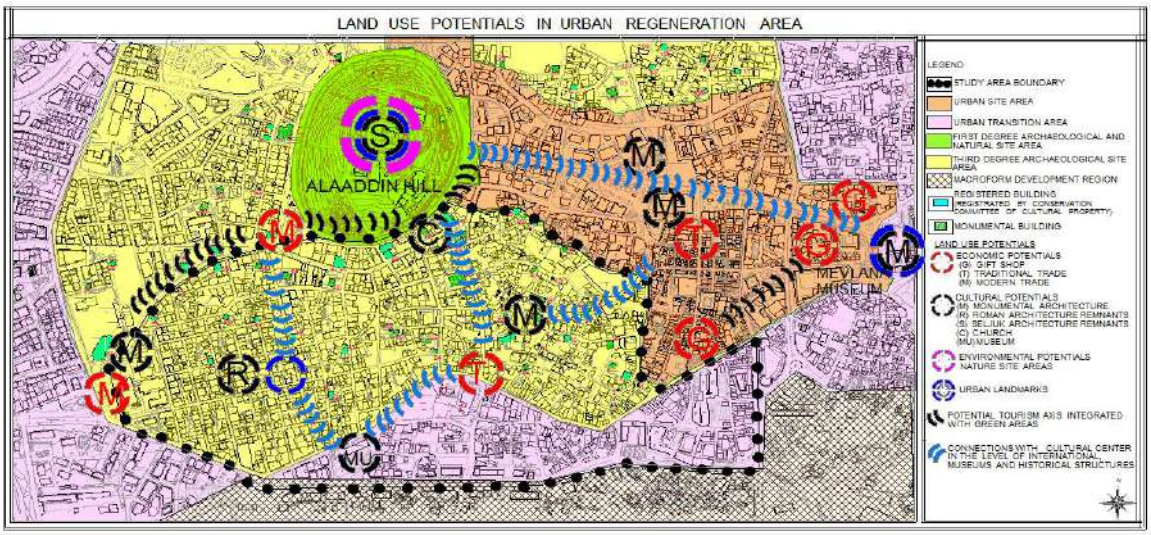

Figure 5. Land use potentials in the project area.

Potential land uses were identified together with their urban impact areas. The project area is located within a third degree archaeological conservation area. The cultural potential of the projects site includes a church, a square with Roman-era remains, a museum, and monumental and registered buildings. The economic potential includes a traditional affinity with and connections to trade. The Mevlana Museum, an international center of religious tourism, and the Alaeddin Hill, a natural and archaeological conservation site, are among the important landmarks in the vicinity of the project site. The Alaeddin Hill also provides a perfect view of the project site.

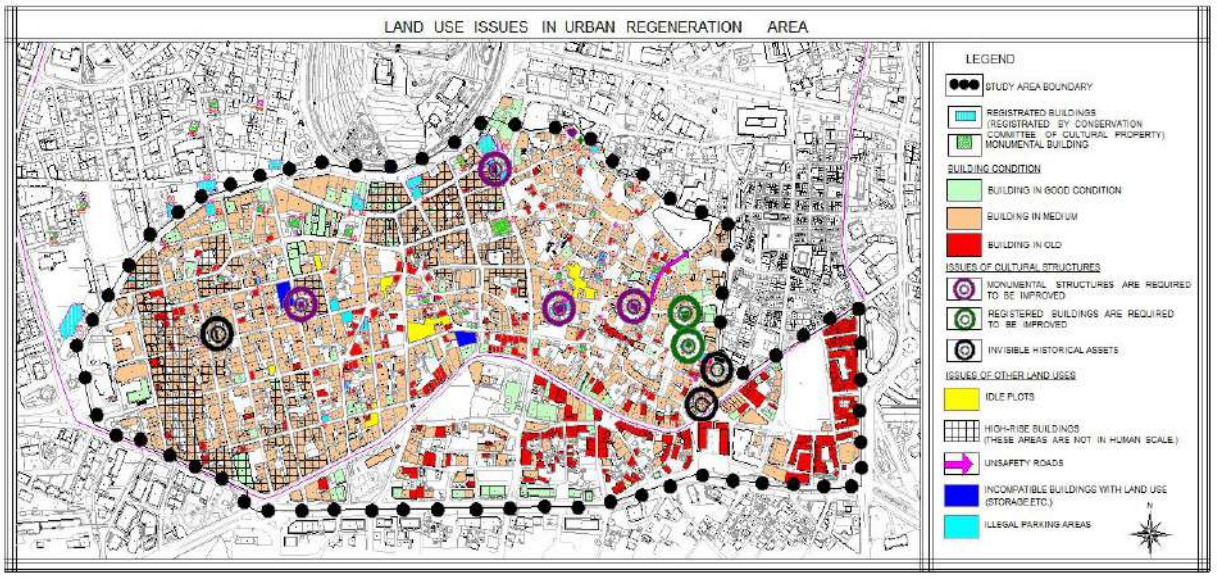

Figure 6. Land use issues in the project area.

Problems in the project site were examined under three headings: the current building stock, problems with cultural structure, and other land use problems (Figure 6). An analysis of the current building stock showed that most buildings were either in bad or moderate condition, and very old. This lowers the rents at the city center, and attracts low-income families who prefer the area for their housing needs. Therefore, new regulation about construction in the area should include detailed provisions on how to meet the housing needs of low income families. With regards to cultural structures, problems were identified regarding registered buildings and monumental structures that are in need of new arrangements, and cultural assets underground. Other land use problems

included idle plots, high-rise construction that is at variance with human scale, illegal parking areas, and lack of safety on the roads at night and during the day.

Solving construction and land use problems identified in the land analysis, by taking their current potential into account, is crucial to achieve a holistic planning and improve the attractiveness of the project site.

3.2 Analysis of participants views in the project area

Participants residing in the project site were asked about their views on the process of regeneration. Then, a survey was conducted to examine residents'

- social structure,
- levels of awareness about existing projects,
- views about the uses of the current building stock and its vicinity,
- future designs once the regeneration is over, and levels of importance attached to proximity to services.

A standard table on acceptable sample sizes for different populations Altunışık et al., (2010) was consulted to select participants and determine sample sizes.

While calculating the internal consistency (reliability) of the questions in the questionnaire, this study used the Cronbach's alpha coefficient, which is one of the most frequently used methods. For this process, the questionnaire was applied with a pretest group of 38 people, and the Cronbach's alpha coefficient was found as 0.901. In this case, the scale of the questionnaire has a high level of reliability, and these questions could be used for implementation. It was determined that there was no need to remove any question from the questionnaire, and this questionnaire could be applied with stakeholders.

The survey was conducted in intensive residential and partially residential, partially commercial areas, with a sample size of 350 for different population sizes and 95% level of confidence. Simple random sampling was used to select the participants.

Participants were asked questions designed to examine the social structure of the project site (Figure 7).

Household sizes in the project site usually vary between 2 and 7. A small number of houses had 8 or more residents. Households with 8 or more residents are usually occupied by large Syrian immigrant families. Low rents are the main reason why Syrian immigrants prefer this area. In addition, 98% of the participants said they chose to live in this area because of its proximity to work. 94% of the participants reported living in rented houses, indicating their levels of savings.

Figure 7. A view of the project area

Participants were asked questions that were designed to gauge their knowledge of the existing projects run by Meram Municipality.

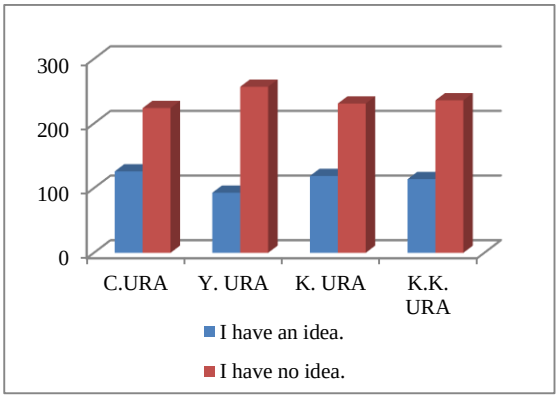

Figure 8. Knowledge of existing projects

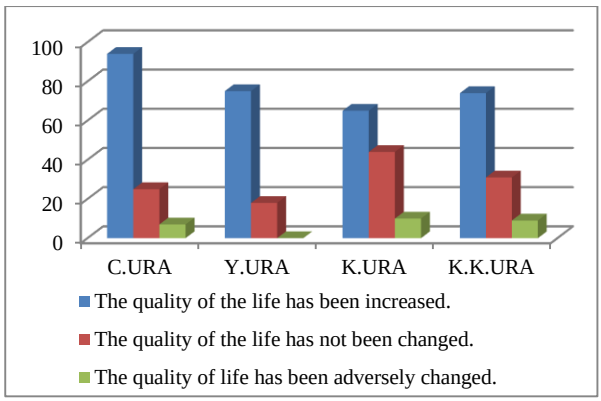

Figure 9. Effects of the projects on quality of life

Most participants are not knowledgeable about past and current projects run by the municipalities (Figure 8). Those who know about the projects thinks they improve quality of life (Figure 9). A small minority of the participants think that these projects have a negative effect on their quality of life (Figure 9).

Participants were asked questions about the uses of the current building stock and its vicinity.

Notable views expressed by the participants included the following: there are designated common areas but they are disused, failing to serve their functions; there are not enough car parks; and more than 80% of the buildings were built over 40 years ago.

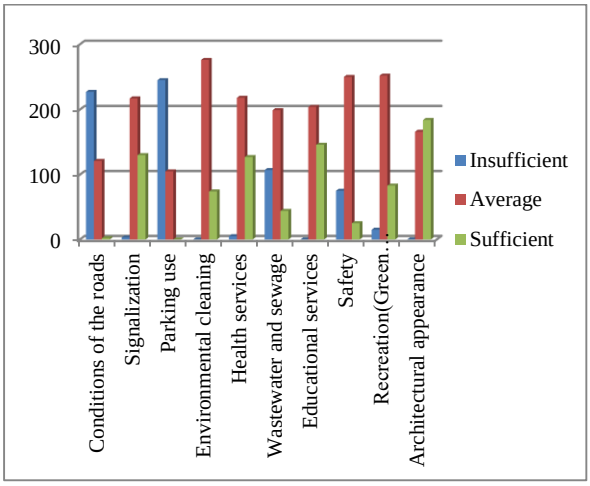

Figure 10. Participants' views on problems in the project site

Figure 10 reports participants' views on problems in the project site. As Figure 3.8 shows, the following are the main issues:

- There is a lack of car parks and planning concerning roads and streets.
- Other services are present, but need to be improved for a better quality of life.

Participants were asked to indicate the level of importance they attach to general designs after regeneration and expectations about public services (Figure 11).

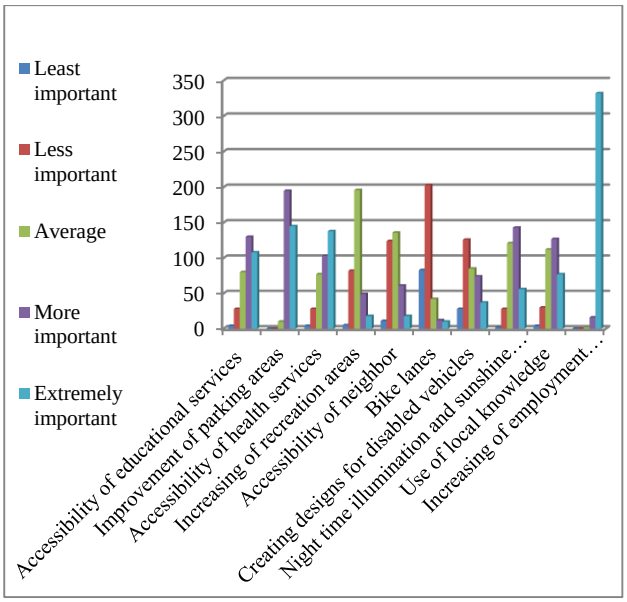

Figure 11. Importance of general designs and proximity to services for users of the project site following regeneration

Designs involving bike lanes and disabled vehicles were rated as less important. Access to education services, improvement of parking areas, construction that pays attention to night time illumination and sunshine during the day, and use of local knowledge were rated as more important. Access to healthcare services and creation of employment opportunities were rated as extremely important.

3.3 Recommendations for urban regeneration projects to achieve sustainable urban land development in Meram Municipality, Konya

Based on the preceding analysis of the projects run by Meram Municipality, the following recommendations to achieve sustainable land development are made regarding the planned Mevlana Urban Regeneration project: measures should be taken to solve problems of urbanization,

a land management authority should be established, and spatial objectives should be identified for urban regeneration projects.

Measures to solve problems of urbanization

- Detailed inventory of the public areas should be prepared;
- Real estate investment partnerships should be created and be involved in the system in order to prepare the infrastructure of registered public lots, lands and unregistered lands in accordance with the settlement policies, environmental plans and construction plans;
- Public administrations should have as much land as possible, and their land stocks should be increased;
- Lower income groups should be given the opportunity to have access to affordable housing areas with a small scale parcel (200-250m2), controlled and registry guaranteed structure and municipalities should be given technical, administrative, and financial support by the central administration;
- Municipalities should be able to develop land and housing policies and tools (planning, taxing, administrative, economical devices etc.) addressing different social statuses (Inam, et al., 2012)

Establishing a land management

It is necessary to create a land management authority on urban areas for;

- providing and sustaining a system which will provide land and area usages in the framework of legal arrangements;
- regulation of records, management, protection and active usage of public lands;
- providing lands necessary for public usage and coordination between the institutions;
- managing, developing and planning land stock areas,
- ensuring urban area planning and urban development.

Such an authority would follow the development trends and needs of a certain locality where the construction plan is applied and determine the situation of residential, industrial, agricultural, and recreational areas, etc. Moreover, this authority should also evaluate, in an up-to-date and effective way, the trends of the municipalities regarding the amount of construction lands needed or the potential demand for new construction lands when the municipalities determine the housing areas during the planning stage (Inam et al. 2012).

Devising land development policies for urban regeneration

On the basis of the land analysis and survey analysis carried out, the following spatial objectives were identified for the urban regeneration project, if sustainable land development is to be achieved in the project site:

- The project site should have a vision that is in harmony with the rest of the city center, the identity of the city, and larger scale urban plans.
- Historical and cultural assets (monumental buildings, registered buildings and non-tangible assets) should be unearthed and restored for use as boutique hotels, museums, etc.
- Plans should be revised by taking current problems with physical structures (building age, building uses, etc.) into account.
- Measures should be taken to prevent illegal uses (e.g. illegal construction).
- Services should be developed to improve the quality of life, in line with the expectations of the residents (education, health, environment and site selection preferences).
- Appropriate planning steps should be taken to address problems identified in the area, in order to improve the quality of life and by taking residents wishes and expectations into account (car parks and regulation concerning roads and streets, among others).
- Urban design projects should be used in a gradual manner to resolve problems associated with planning.
- To prevent social conflicts in the project site, where different ethnic groups live side by side,

and to strengthen public involvement in the planning process, meaningful and active participation should be encouraged.

- Governance relations should be established with the local community/public.
- Because most of the current residents of the project site are renters, alternative living arrangements should be made to make sure the project does not victimize renters.
- Because residents in the project site prefer this area for the employment opportunities it offers, planned uses should improve local job and employment opportunities.

4. Discussion

While urban regeneration applications in Turkey, unlike the existing practices, continue to be crucial in forming sustainable cities, the problems that are experienced in practice reduce the success of urban regeneration. In increasing the success of urban regeneration, in difference to other methods of zoning implementation, the land development process should be supported by spatial, political and social aspects.

Urban regeneration applications with their political aspect;

- In the scope of state policies, land development policies that constitute the vision of the city and criteria for competitive power against other cities are formed in a limited way. Each city is unique, and land development policies are highly important in promotion of this uniqueness on the local level and creation of identity. This process is to important to be left to local governments or an undertaking firm only. There is a necessity for local and central land administration systems that monitor and inspect this process.
- The land administration policies that will reflect the vision of the city in all its parts should be assessed by objective experts using analyses created by information systems. This way, areas that should be prioritized for urban regeneration may be determined by preventing practices aimed towards gaining capital.
- Land development increases the urbanization pressure on rural lands. Urban regeneration should achieve planning of reserve areas during the land development process and supporting vertical growth.

Urban regeneration applications with their spatial aspect;

- In the land development process, the approach of maximizing the plots in other practices leads to the minimization of the open and green spaces in the areas of implementation. In order to preserve the environmental structure and nature in urban regeneration applications, open and green spaces should be planned in the areas of implementation.
- The existing problems that are determined in the urban area should be demonstrated not only by considering the physical structure but also alongside the social, economic and environmental structure of the area.
- Urban regeneration should develop alternatives regarding land development in the plans to be created about the problems that are determined. These alternatives should be created based on the disaster status of the region, presence of historical buildings and the future projections of the city.

Urban regeneration application with their social aspect;

- Land administration systems should form interfaces that support social participation.
- The expectation of the residents should be collected by using appropriate instruments of participation and included in the planning process.
- Economic vibrancy should be created to form accessories that support the

development of the society and prevent social structure problems (safety, etc.).

5. Conclusion

The pace of urbanization in Turkey is very high. Achieving sustainability in such a rapidly urbanizing system is difficult. To understand this process of urbanization and to achieve sustainability, it is crucial that we examine land development policies, projects implemented, and problems of sustainable urbanization in Turkey. To this end, this study examined past and ongoing urban regeneration projects of Meram Municipality in Konya, and identified problems encountered in sustainable land development. Then, it proposed spatial objectives to achieve sustainable land development in an urban regeneration site planned by Meram Municipality.

To achieve sustainable and high quality land development in Turkey, the following general recommendations are made:

- Measures should be taken to solve problems of urbanization. Reserve areas should be created, and social housing should be a priority to prevent illegal construction and emergence of shantytowns occupied by low income groups.
- A land management authority should be established to protect rural landscapes, improve technical and legal records of publicly held land, protect and develop historical and cultural assets, and coordinate the work of different governmental bodies currently tasked with land management.
- Urban regeneration projects should be used not only to solve current problems, but also to create sustainable urban areas that improve social justice and quality of life, and preserve urban and environmental assets.
- Information and awareness projects targeted at politicians, representative of administrative units, decision makers and planners should be developed and implemented.
- Administrative units responsible for city management should be encouraged to develop medium and long term alternative policies that have economic and social aspects, are supported by civil society organizations' projects, and enjoy widespread public acceptance.
- Organizations and actors such as media outlets, educational institutions and civil society organizations should be mobilized to raise awareness among target audiences, children and teens in particular, about protecting the nature and making efficient use of space; and steps should be taken to ensure the participation of the general public and civil society organizations in planning and decision making processes.
- At the local level, to achieve sustainable land development through urban regeneration projects, municipalities should set project boundaries to allow organic integration with the rest of the city, and create projects that allow mixed land use rather than being housing oriented, preserve and develop the cultural and environmental assets of the city, meet the expectations of residents, and encourage participation and inter-group dialogue.

5. References

Afacan, Y., 2015. Resident satisfaction for sustainable urban regeneration. *Proceedings of the Institution of Civil Engineers - Municipal Engineer*, 168, **4**, 220-234.

Akkar, M. Z., 2006. Urban regeneration concepts in West Country, definitions, process and Turkey. *Jornal of Planning,* **2**, 29-38. (in Turkish)

Aksu, A., 2007. Using Geographic Information System in Urban Conversion, Example of Üsküdar County, Master Thesis, ITU Graduate School of Natural and Applied Science, Istanbul, 137. (in Turkish)

Altunışık, R., Coşku, R., Bayraktaroğlu, S. and Yıldırım, E., 2010. Research methods in social sciences, SPSS applied, Sakarya Publishing, 135. (in Turkish)

Ataov, A. and Osmay, S., 2007. Turkey urbanization analysis project: a procedural approach to urban transformation in Turkey. *METU Journal of the Faculty of Architecture*, 24, **2**, 57-82.

Ayten, A., M. 2004. The concept of transfer of development rights and examples of implementation of this concept. *Reform in Urbanism.* UCTEA Union of

Urban Planner, Mersin University, s. 211-226. (in Turkish)

Batuman, B. 2013. City profile: Ankara. *Cities*, **31**, 578-590.

Bozdağ, A. 2015. Analysis of Urban Regeneration Applications in Consensus Land Use Planning Approach. Phd Tehsis, Selçuk University, Graduate School of Natural and Applied Sciences, Konya, 204. (in Turkish).

Cuthbert, A. R. and Dimitriou, H., T., 1992. Redeveloping the fifth quarter- a case study of redevelopment in Hong Kong. *Cities*, 9, **3**, 186-204.

Degen, M. and Garcia, M., 2012. The transformation of the 'Barcelona Model': an analysis of culture, urban regeneration and governance. *International Journal of Urban and Regional Research,* 36, **5,** 1022-1038.

Demirsoy, M. S., 2006. Impact of urban transformation projects on urban identity (Lebanon-Beirut-Solidere urban transformation project sample survey). Master Thesis. Mimar Sinan Güzel Sanatlar University, Graduate School of Natural and Applied Sciences 185. (in Turkish).

Eğercioğlu, Y., Yakıcı, N. and Ertan, T., 2016. Urban decline and revitalization project in Izmir-Tire historical city center, *Procedia - Social and Behavioral Sciences,* **216,** 330-337.

Enemark, S., Bell, K., Lemmen, C. and Mclaren, R., 2014. Building Fit-for-Purpose Land Administration Systems, *FIG Congress 2014, Engaging the Challenges,* Enhancing the Relevance Kuala Lumpur, Malaysia, 16 – 21 June 2014

Esina, E., 2009. Land Administration, Master's Thesis, Selcuk University, Graduate School of Natural and Applied Sciences, Konya. (in Turkish).

Grabkowska, M., 2015. Between gentrıfıcatıon and reurbanısatıon. The partıcıpatory dımensıon of bottom-up regeneratıon in Gdańsk, Poland, *Geografıe*, **2**, 210-225.

Gökçen, T., 2004. The search for a "compact" urban form with multi-layered land use decisions in urban planning. *Reform in Urbanism*, 271-279. UCTEA Union of Urban Planner, Mersin University. (in Turkish).

Göksu A.F., 2003. Innovative approaches in urban transformation, *Urban Transformation, Symposium Proceedings,* 270-280, UCTEA Union of Urban Planner, Ankara. (in Turkish).

Güzey, O., 2016. The last round in restructuring the city: Urban regeneration becomes a state policy of disaster prevention in Turkey. *Cities,* **50,** 40-53.

Inam, S., Ertaş, M. and Başarır, A., 2012. The importance of the urban land policy for sustainable development, problems and solution recommendations. *FIG Working Week*, Rome, Italy.

Lee, K.L.G., 2008. Sustainable urban renewal model for a high density city Hong Kong. PhD Thesis, The Hong Kong Polytechnic University.

Lemmen, C., Oosterom, P.V., Kalantari, M., Unger, E-M., Hai Teo, C. and Zeeuw, K.D. 2017. Further standardisation in land administration. *2017 World Bank Conference on Land and Poverty,* The World Bank - Washington DC, March 20-24, 2017

Muggenhuber, G., Navratil, G., Twaroch, C. and Mansberger, R., 2011. Development and Potential for Improvements of the Austrian Land Administration System. *FIG Working Week 2011 Bridging the Gap between Cultures Marrakech, Morocco,* 18-22 May 2011

Özdemirli, Y. K., 2014. Alternative strategies for urban redevelopment: A case study in a squatter housing neighborhood of Ankara. *Cities*, **38**, 37-46.

Pixova, M., 2013. Spaces of Alternatıve Culture in Prague in a Tıme of Polıtıcal-Economıc Changes of the Cıty, *Geografıe,* **3**, 118.

Ponsard, C. and Touzani, M., 2017. Extending Land Administration Domain Models with a Goal Perspective. *In Proceedings of the 3rd International Conference on Geographical Information Systems Theory, Applications and Management (GISTAM 2017),* pages 244-249.

Queensland Goverment, 2014. Urban Renewal, retrieved from http://www.housing.qld.gov.au/builders/urban_renewal.htm.

Roberts, P., 2000. Urban regeneration a handbook, Editör: Peter Roberts ve Hugh Sykes (der.) London Thousand Oaks, New Delhi: Sage Publication, London, 336 s.

Roberts, P. and Sykes, H., (der) 2000. The evolution, definition and purpose of urban regeneration, Urban Regeneration, London thousand oaks, new delhi: sage publication, **9**, 36.

Roberts, P. and Sykes, H., 2004. Urban regeneration a handbook. sage publications, London, 336.

Rothenberg, J., 1969. Economic evaluation of urban renewal: conceptual foundation of benefit-cost analysis. Washington: The Brookings Institution, 277.

Satellite vıew, 2014. Accessed in April 2014 from Google earth.

Tekeli, I., 2010. To think the housing problem with housing presentation. Tarih Vakfı Publications, 253. (in Turkish)

Tokman, I., Y., Altay, D. and Kut, B., 2004. The local agenda 21 movement as a tool for rescheduling local

governments. *Reform in Urbanism*, UCTEA Union of Urban Planner, Mersin University. 153-160. (in Turkish).

Turcu, C., 2012. Local experiences of urban sustainability: researching housing market renewal interventions in three English neighbourhoods. *Progress in Planning,* **78**, 101-150. http://dx.doi.org/10.1016/j.progress.2012.04.002.

Turok, I. 2005. Urban transformation: what can be done and what should be avoided? *International Symposium on Urban Transformation Applications,* 25-30. 27-30 Kasım 2004, D. Özdemir ve P. Özden ve S. Turgut (ed). Küçükçekmece Municipality Publisher, İstanbul. (in Turkish).

Türker, M., 2012. Agricultural reform practices within the scope of land management and rural area regulation in our country. *Sustainable Land Management Workshop in Turkey*, 198-216. Okan University Publisher. (in Turkish).

Tweed, C. and Sutherland, M., 2007. Built cultural heritage and sustainable urban development. *Landscape and Urban Planning*, 83, **1**, 62-69.

Uzun, B., 2000. To Investigate highway-property relations in respevt of Zonning Rights and to propose a mode Using Land Readjustment Approach, Phd Thesis, KTU, Graduate School of Natural and Applied Sciences, Trabzon, (in Turkish).

Uzun, B., Demir, O. and Nişancı, R., 2012. Development plan applications in Turkey. *Sustainable Land Management Workshop in Turkey*, 286-308, Okan University Publisher. (in Turkish).

Ülger, N., E., 2012. Land Administration in Turkey, *Sustainable Land Management Workshop in Turkey*, s. 62- 90, Okan University Publisher. (in Turkish).

Yetıskul, E., Kayasu, S., Ozdemir, S., Y. 2016. Local responses to urban redevelopment projects: The case of Beyoglu, Istanbul, *Habitat International*, **51**, 159-167. http://dx.doi.org/10.1016/j.habitatint.2015.10.019

Yıldız, F., 2014. Land Development Planning, Application, Legislation, Nobel Publisher, Ankara, 686. (in Turkish). (in Turkish).

Yomralıoğlu, T., 2012. Land Management Overview, *Sustainable Land Management Workshop in Turkey,* 37-61. Okan University Publisher. (in Turkish).

Yomralıoğlı, T. Nişancı, R. and Çete, M., 2012. Real Estate Valuation. *Sustainable Land Management Workshop in Turkey,* 309-341. Okan University Publisher. (in Turkish).

Internet References

1- http://www.bayindirlik.gov.tr/turkce/dosya/makale11.pdf (04.03.2008)

2- https://www.tursab.org.tr/pic_lib/bigSize/resimgalerisi/113/konya_113_1244153.jpg (09.02.2016)

3- https://www.tursab.org.tr/pic_lib/bigSize/resimgalerisi/113/konya_meke_golu-1_113_1243151.jpg (09.02.2016)

4- http://ruzgarorganizasyon.com/semazen-gosterisi/ (09.02.2016)

5- http://www.konya.bel.tr/haberbasin.php?a=bldfoto/14/zbt/bedesten_b_1.jpg&haberID=4289&hDurum=FOTO (09.02.2016)

6- http://www.konhaber.com/haber-72097-Konya-Anadolunun-ihracat-kaplani-oldu.html (09.02.2016)

7- http://gidatarim.com/manset/fethiyede-tarim-fuari-basladi/75521.html (09.02.2016)

8- https://commons.wikimedia.org/w/index.php?curid=15946885 (09.02.2016)

9- http://ilginarastirmalari.blogspot.com.tr/2013_04_01_archive.html (09.02.2016)

10- Graphics, was created by the database information of Turkey Istatistical Institution (https://biruni.tuik.gov.tr/medas/?kn=95&locale=tr), (11.02.2016).