# Urban Regeneration Projects in Istanbul: Gaziosmanpaşa Case

## Hasan Tahsin USTA, Nihat Enver ULGER and Can IBAN, Turkey

**Key words**: Urban Renewal, Land Management, Istanbul

## SUMMARY

After the Marmara Earthquake in 1999, Turkey made some advances that would speed up urban regeneration activities to build up cities that are sustainable and more enduring to disasters. In this context, Turkey, that has met the legal arrangements, carries out the urban regeneration practices especially in Istanbul where a big earthquake is expected to happen, with public participation and private sector financing. In order to have justice and distribute all benefits equally, "Value-based Method" had been developed. This method enabled participants and private sector to be contented with regeneration activities and it is thought to be an ideal method for Turkey. In Gaziosmanpaşa, which is one of the most populated districts of Istanbul, urban regeneration activities are executed in 37 percent of the area of the district. With these activities, sustainable development, livable urban systems, adequate infrastructure and efficient social life are targeted in the district. In this paper, all details related with urban regeneration activities in Gaziosmanpaşa are given.

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## 1. INTRODUCTION

The term "Regeneration" is defined in Oxford Dictionary as "Bringing new and more vigorous life to and area, industry, institution etc." The term "Urban Regeneration" is introduced by many authors as producing economically, physically, socially and environmentally permanent solutions in areas that have lost their urban functionalities; implementing comprehensive sets of actions with a legal basis undertaken in order to regenerate lost or abandoned social relations (Thomas 2003; Roberts 2000; Polat and Davutoğlu 2007). In a number of countries, various projects referred to as "regeneration" or "renewal" have been conducted in areas that need to be regenerated from industrial uses to housing, or from port areas to commercial centers, after these areas have become outdated, dysfunctional and partially collapsed. Example of these projects can be seen in the UK (Rumbold Associates 2005, URL-1, URL-2, URL-3), Barcelona-Spain (URL-4, GeoFactSheet 2003), La Défence – France (Brunn et al. 2003, Ersoy 2004, Kayalar 2004, Demirsoy 2006), China (Sasaki 2002, Qu and Ye 2008) and in many other places.

When Turkish cities are taken into consideration, urban regeneration refers to an arrangement of property whose land has crooked and dilapidated constructions, sensitive to natural hazards and urban risks, with insufficient and poor infrastructure, dense, illegal and unsettled (Ülger 2010). Illegal settlement is unfortunately a common situation of Turkey. It is suspected that 80 % of housing in Turkey is without settlement permission and 25 % of all housing in Turkey is illegal. Especially in Istanbul, illegal settlements are to reach up to 60 percent (Korkmaz 2014). Urban degradation and problems in urban patterns are generally results of the fact that rural land planning and development programs have never been done regularly (Ulger, 2010). This spontaneous and immoderate structuring in Turkish cities, insufficient services, urban organizations, that have not been settled in due time and adequately, make urban generation inevitable in Turkey.

By 2000s, there have been increasing partnerships between local authorities and private sector. Urban regeneration projects are implemented not only in slum areas, but also in areas that are sensitive to natural hazards.

1999 İzmit Earthquake ($M_w$ 7.6) was the crucial point for the urban regeneration projects in Turkey. The government aimed to identify high-risky areas that are sensitive to possible natural hazards and re-arrange building stock that is out of standards. Government, private sector and real estate investment trusts (REITs) have attention on illegal and nonstandard slums in city centers (Uzun 2006).

After 2011 Van Earthquake ($M_w$ 7.1), the government took serious steps for demolishing illegal buildings and regenerating old ones; therefore Law #6306, known as "Urban Regeneration Law", officially named as "Law on Restructuring of Areas Under Risk of Natural Disasters" entered into force in May 2012. Implementing regulations of this law were published in Official Gazette in August 2012. With this law and related legislation, main urban regeneration projects are accelerated in Turkey and a new era has begun. Ministry of Environment and Urban Planning has identified 100 risky areas and preferably aimed to demolish approximately 165.000 buildings in 35 cities in a massive urban regeneration program. Istanbul is conspicuous to have 27.700 risky buildings and 230.000 effected population. In order to make out such an aim, the government needs to supply a budget of 23 billion US dollar, even though the government is able to construct 50.000 new independent units annually. As a result, public-private partnership is an obligation to carry out these projects. In order to satisfy owners, there has been some attempts such as increasing floor numbers and transfer of construction rights (Cushman & Wakefield 2014).

In Turkey, it is understood that "value-based method" is the most feasible, applicable and judicious method rather than "public-based" and "investor-based" methods for urban regeneration projects. An urban regeneration process which is based on this method has following steps:

An urban regeneration process which is based on this method has following steps:
- **Determining regeneration areas and declaration**
- **Identifying the current conditions of real estates**
- **Investigation of participation value and ratio, identification of holders of right**
- The best and the most efficient land use analysis
- Preparation of development plans for urban design projects and regeneration
- Feasibility analysis for consignment according to project value
- Confirmation of project value
- Confirmation of development plan for regeneration
- Confirmation of consignment value
- Preparation of consignment value lists, preparation of consignment offer lists
- Consignment offer lists and preparation of independent unit plans
- Consignment
    - Application of Development Plan for Regeneration
    - Validation by Municipality Assembly
    - Registration
- Construction

It is required to complete in agreement the first three steps that are stated in bold characters. After these steps, the process continues with the steps indicated in Figure 1. These steps are organized depending on demands of Construction Company and owners of property. For the purpose of definite project value, it is recommended to apply the steps in Figure 1. These steps are optional. In the analysis of feasibility; physical possibilities, legitimacy, feasibility and the most productive usage in terms of economy are taken into account. By making

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consignment values definite, preparations for value list and consignment offers come afterwards. Together with consignment, a development plan in aim of regeneration is applied with validation of assembly of municipality and title registration. After all these steps, urban regeneration process is completed with construction. (Ülger, 2014)
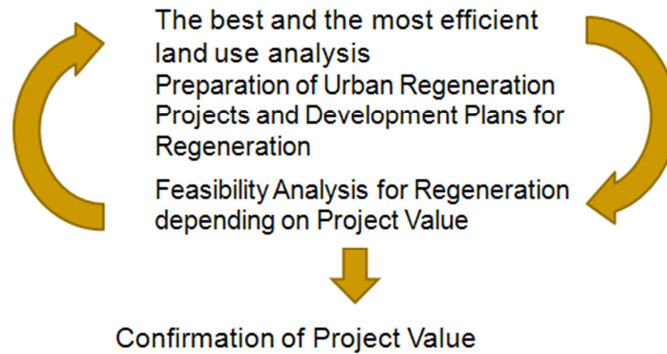


Figure 1: Confirmation of Project Value

## 2. URBAN REGENERATION IN GAZİOSMANPAŞA DISTRICT

### 2.1 General View

Gaziosmanpaşa district is located close to the city center of Istanbul and has a well connection to city's highway network and Bosphorus bridges. Gaziosmanpaşa has a young, but poor-educated population. The general information related with Gaziosmanpaşa can be found in Table 1.

| Area of the district | 1.173 hectares |
|---|---|
| Total population | ~500.000 |
| Total parcel area | 8.150.389 m$^2$ |
| Total building number | 31.315 |
| Number of streets | 1.581 |
| Total independent housing | 164.133 |
| Total workplaces | 27.596 |
| Total constructed area | 14.175.000 m$^2$ |

Table 1: General view on Gaziosmanpaşa

In Environmental Organization Plan of Istanbul Metropolitan Area, general aims are equated city centers, decentralization of industrial zones and constructing strong transportation network. Gaziosmanpaşa locates in this development zone in which life support systems and sensitivity to ecosystems are highly supported in living spaces. The other aims are urban development with natural hazard consciousness and sensitivity to historic-cultural values, increasing spatial quality in living spaces and preventing environmental pollution.

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Gaziosmanpaşa district will be connected with city center by underground railway networks in 2016-2019 period. There will be also direct connection highway from Gaziosmanpaşa to 3$^{rd}$ Bosphorus Bridge, which is being constructed nowadays.

## 2.2 Urban Regeneration Process

### 2.2.1 Scopes and Actors

There are many specific reasons why urban regeneration projects should be taken into account in Gaziosmanpaşa district:

- Unhealthy housing areas that lost economic life.
- Nonstandard equipment areas that cannot address to population's requirements.
- Transportation axes with short cross-sections and incapacity to current traffic density.
- Density of slum areas which are illegal and in bad condition.
- Necessity to decentralize the industrial areas in the district.
- Weak integration between Gaziosmanpaşa district and Istanbul Metropolitan Area.

Urban regeneration projects in Gaziosmanpaşa district are carried out with three main actors. The public that lives in Gaziosmanpaşa directly participates to all processes of project. Local authorities are responsible for managing the urban regeneration process and supplying the relationship between the public and investors. The investors continue to regenerate urban areas with the feedbacks from public and local authorities during urban regeneration processes.

Property-right holders negotiate with GOPAŞ Company which is a copartner of Gaziosmanpaşa Municipality. GOPAŞ makes agreements with investor companies after contracting with property-right holders during the construction phase.

The work flow and management of processes can be seen in Figure 3.

### 2.2.2 Identifying Regeneration Areas

As a result of analyses in all district, areas to be regenerated were identified. Beside the identification of regeneration areas, risky sub-areas were also determined in which the population should be decentralized. After these analyses, urban regeneration projects would be applied in 13 neighborhoods (Figure 4) in Gaziosmanpaşa district. The government announced risky areas in Istanbul as 1106 hectares, 432 hectares of them are located in Gaziosmanpaşa district (Figure 2).

On the other hand, the municipality carried out "a property analysis" in project areas in order to understand which types of property exist. In the end, the types of property in the district are:

- Property with land registration.
- Slums on public property with land tenure allowance
- Slums on private property with land tenure allowance
- Occupiers with infrastructure
- Occupiers without infrastructure

Most of the property-right holders (approximately 95 % of them) are satisfied with the project and their participation values are transparently calculated. For those as minority who are not satisfied with the project, expropriation was the last chance to terminate their property-right in order to go on with the project.
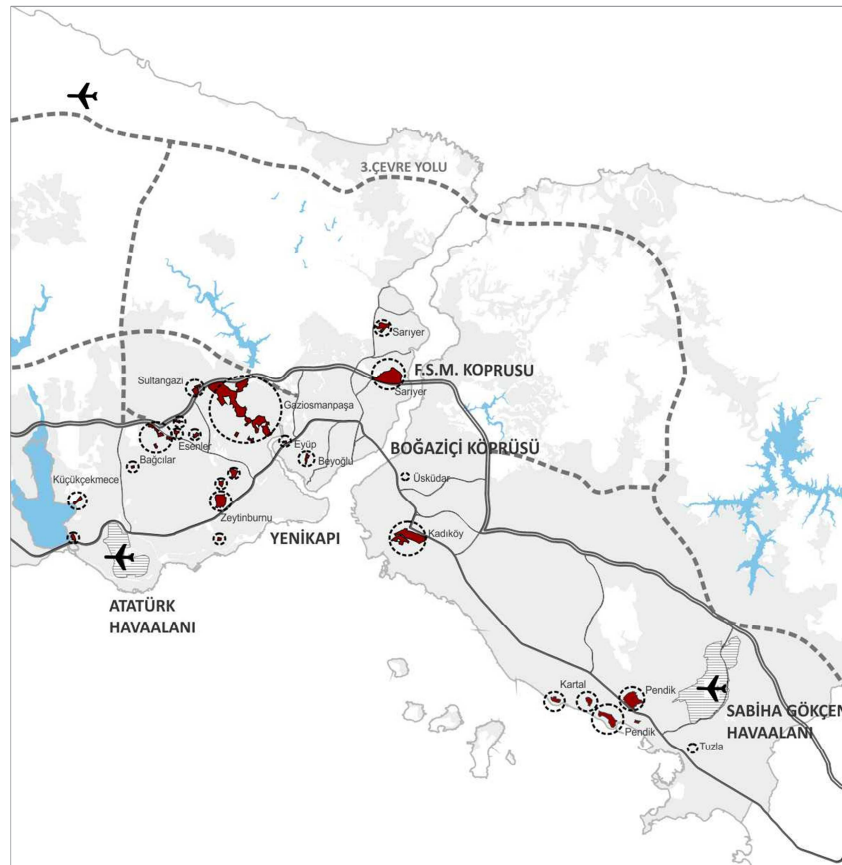


Figure 2: Announced Risky Areas of Istanbul Metropolitan Area

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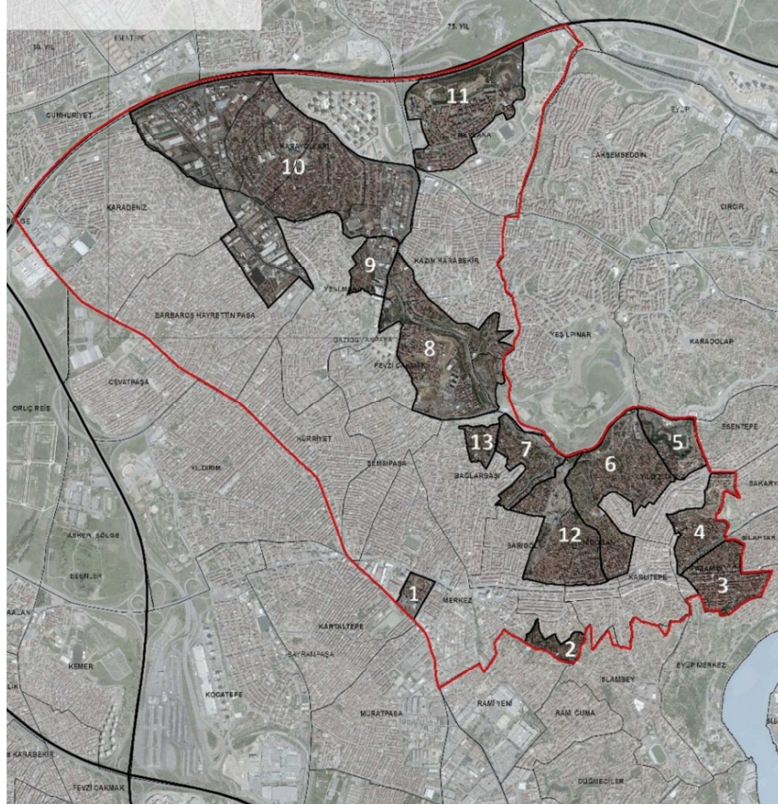Figure 3: The work flow and management of processes in Risky Areas

Figure 4: 13 Risky Neighborhoods in Gaziosmanpaşa District

### 2.2.3 Planning Process

With the integration of "Strategic Plan" and "Urban Regeneration Master Plan", a concept of "sustainable planning" was adopted. Upper level strategic plan was prepared by Foster + Partners, whose headquarter is in London, in order to define general land use.

Lower level plans were carried out by local partners and this partnership was contracted in June 2014. In August 2014, current situation analyses were consigned to local authority. In October 2014, Urban Regeneration Master Plan was completed. In December 2014, implementation guide, development plans with 1/5000 and 1/1000 scale and Urban Design Projects were accomplished.

In Urban Regeneration Master Plan, LEED-Neighborhood Development Vision is adopted (Figure 5) and project "constants" are defined. In master plan, 10 different issues are discussed and strategies are well-defined for all issues.

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Figure 5: LEED-Neighborhood Development Issues

Transportation, as the biggest problem of Istanbul, is planned in master plan with following objectives:

- Understanding existing and future demand
- Design an efficient road network for Gaziosmanpaşa
- Introduce new integrated public transportation system
- Gaziosmanpaşa toward an innovative parking strategy
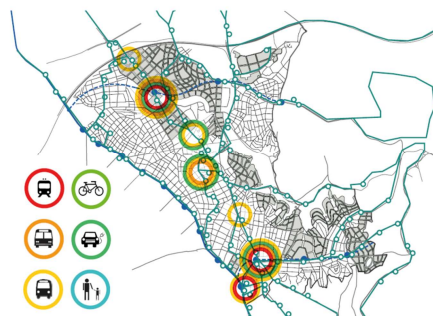


Figure 6: Transportation axes and vehicle usage in Master Plan

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As master plan states, with the usage of smart systems in public transportation and parking systems, the traffic congestion will reduce with the minimum rate of 25 percent.

For infrastructure, improved efficiency of energy / water / waste management through smart technologies is planned. Best practice planning and design will reduce the demand for energy and will cause decentralized infrastructure.
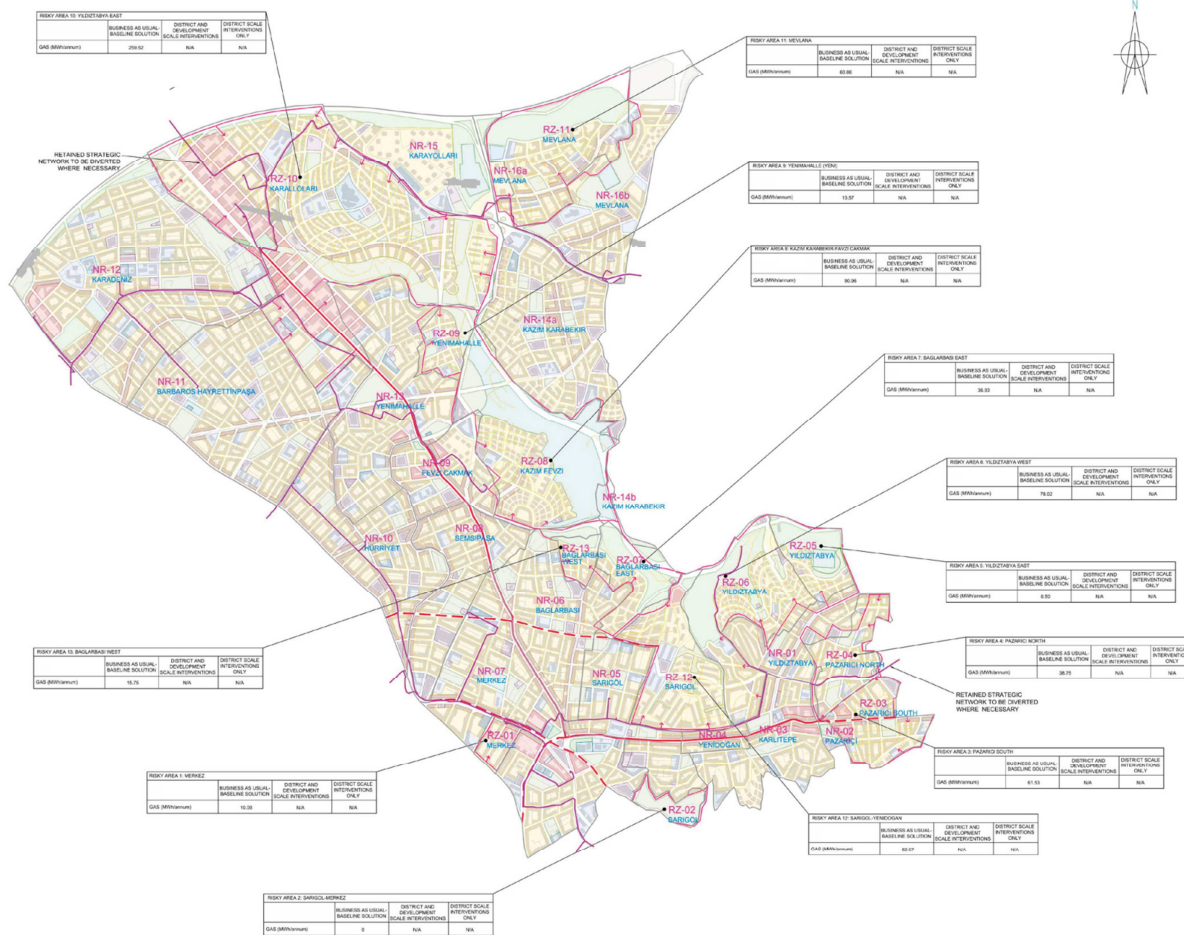


Figure 7: Infrastructure network in Master Plan

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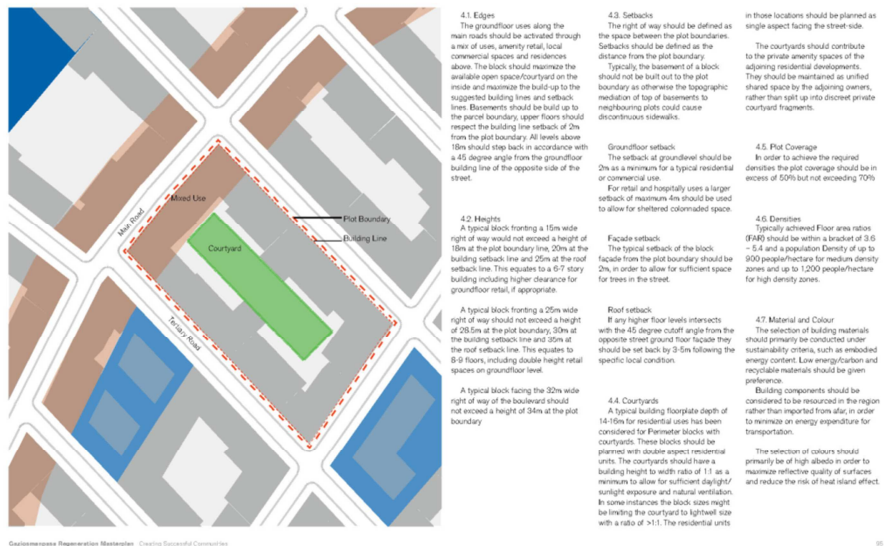Sofia, Bulgaria, 17-21 May 2015
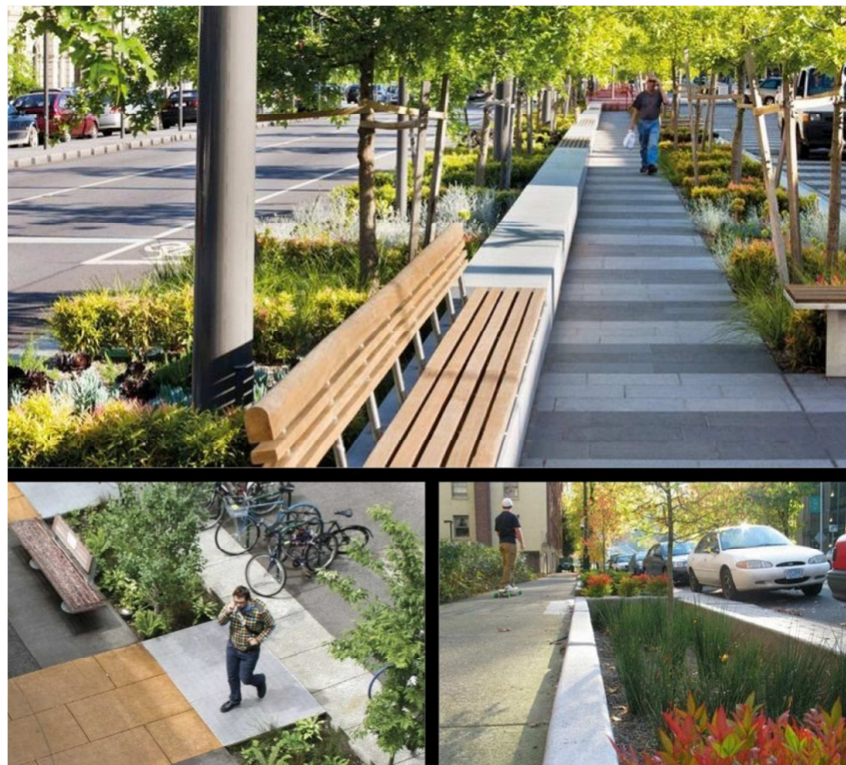
Figure 8: Urban Design Guide


Figure 9: Planned Green Landscape in Urban Design

For safety against natural hazards, religious meetinghouses were thought to be emergency gathering places (2 m$^2$ per person).
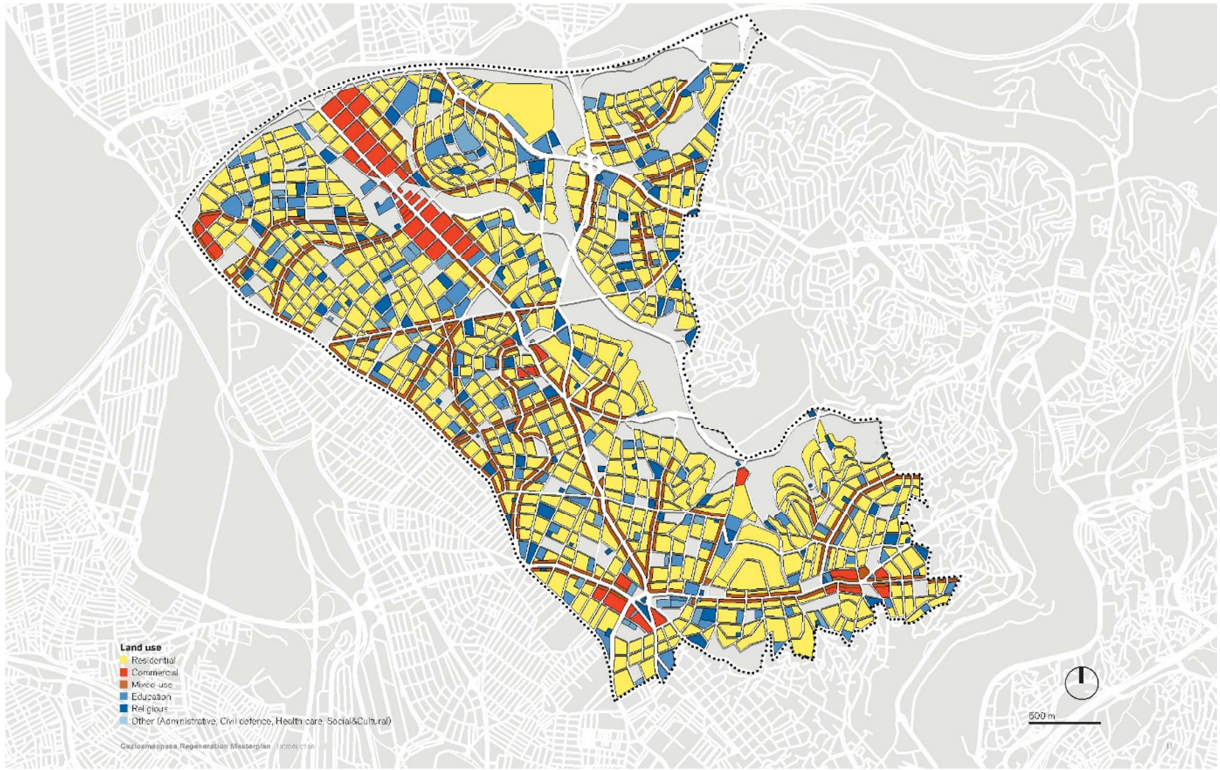
Figure 10: Land Use in Master Plan

### 2.2.4 Implementation

In order to implement urban regeneration processes, Gaziosmanpaşa Municipality set up two different units in municipality and five field offices in risky areas. In these offices, public is able to negotiate with authorities and follow all the processes.



Figure 11: Sarıgöl Neighborhood Urban Regeneration Office

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From the beginning of urban regeneration process until now, negotiations have been completed with 1684 buildings and agreements have been made with 2809 people; totally 1378 building have been evacuated and demolished.

The steps that have been taken so far;
- 432 hectares in Gaziosmanpaşa district (36.82 % of all district) have been announced as risky areas.
- 104.983 people live in these risky areas (20.99 % of all district).
- 11.202 buildings are in these risky areas (35.77 % of all buildings in the district) and agreements have been completed with 1654 buildings (14.76 % of all buildings in risky areas).



Figure 12: Before Implementation (Sarıgöl – Yenidoğan Neighborhoods)

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Figure 13: How it will be seen after implementation? (Sarıgöl – Yenidoğan Neighborhoods)

When one takes land use functional changes into consideration, urban regeneration projects will effect positively on Gaziosmanpaşa district, since:

- Educational areas will increase up to 58 %
- Cultural areas will increase up to 4 %
- Green spaces will increase up to 114 %
- Administrative areas will increase up to 16 %
- Sanitary areas will increase up to 20 %
- Religion functions will increase up to 83 %
- Number of parking slots will increase up to 382 %

While current numbers, which are ranked as 33th out of 39 districts in Istanbul, are:

- 0.60 m$^2$ of education area per person
- 0.02 m$^2$ of cultural area per person
- 1.24 m$^2$ of green space per person
- 0.21 m$^2$ of administrative area per person
- 0.13 m$^2$ of sanitary area per person
- 0.16 m$^2$ of religion function per person

All building will be built with adopting "Energy Efficiency Regulations" of Turkey. This means that solar panel systems and recycling energy from waste disposals will be able to prevent energy losses and decrease carbon emissions. The storm water will be recycled in

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storm water aggregation system and recycled water will be used in landscape and green space irrigation. Smart home systems are introduced in urban regeneration offices in order to use them in prospective building more efficiently (Figure).



Figure 14: Smart home systems that are presented in Urban Regeneration Offices

## 3. CONCLUSIONS

In this paper, urban regeneration projects in Gaziosmanpaşa district of Istanbul are presented. The value-based method for urban regeneration is supported for Turkey. The paper summarizes why Gaziosmanpaşa needs urban regeneration and how they are/will be implemented. Developed vision for urban regeneration master plan is introduced and all planned / modeled outputs of the projects are illustrated.

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**BIOGRAPHICAL NOTES**

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