

# **The Requirements Framework for Location of Urban Regeneration Areas: Case Study of Trabzon Industrial District in Turkey**

**Ridvan Ertugrul YILDIRIM, Ali Erdem OZCELIK, Ebru COLAK, Recep NISANCI  
and Aziz SISMAN, Turkey**

**Key words:** Land management, Spatial planning, Urban renewal, Urban Development, Urbanization

## **SUMMARY**

Today, because of the population growth, the tendency on cities and urbanization increase gradually. Depend on these tendencies, the requirements of planning and location of the settlements and facilities areas on cities are came up with the migration from rural areas to urban areas. In this process, in addition to physical and environmental factors especially the socio-economic factors should be regarded as main component of sustainable urbanization. And also sustainable policies for urban development created by local governances have an effective role. Furthermore, determination of the urban development areas through the cities, land use and land cover structures are required as well. However, both the industrial areas, seaports, airports and the settlements, facilities areas are located in core of the cities even if without sub-scale urban land use planning. So these areas have to be re-allocated with urban regeneration projects to support for better urbanization.

Based on the evaluations mentioned above, this paper outlines the requirements and criteria for location of urban regeneration areas. And also it is comprised to some approaches for integrated urban regeneration projects for provide the sustainability. For this purpose, the light industrial district of Trabzon city is determined as study area. Firstly the current location of this area is evaluated. And following, the physical and socio-economic structure of this area is investigated according to city development. As a result, it is underlined the regeneration of this industrial areas as a priority with respect to other urban facility areas in Trabzon.

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## **1. INTRODUCTION**

For last decades, urban growth and urban regeneration play an important role on both Turkish urban planning and urban development policies and activities. A major challenge of urban planning in response to urbanization and development is to create regeneration strategies and methodologies to ensure and improve the standards of living and quality in current urban environments (Burcu and Sari, 2012). Economic restructuring and globalization enable to increase economic, social and physical challenges in world cities today. In order to transform these cities and regions facing varieties and multi-dimensional challenges it is strongly required to provide the innovative development and partnership structures (Sahin and Korten, 2012). Urbanization issues based on localization initiatives covers identity redefinition, district regeneration, territorial branding and urban competitiveness. This specific case caused closely bound to the improvement of culture and creativity. The co-localization of creative activities in a region, district or country has majority effects both on cultural industry and future development of sub urban areas and potentially whole cities as a potential device and tools (Giuliani and Valli, 2012). In recent years demand driven needs on housing and community development have increased based different reasons such as population growth effects. Especially one of the principal effects on aging and diversification of society because of the demographic evaluation are key challenges for urban planning and development (Sinning, 2012). And also in relation to these effects, the integration with the global socio-economic and environmental development and increasing urbanization actions over the last decades, development of cultural driven regeneration processes are one of the most important drivers of spatial and economic regeneration of distressed urban areas as well. In such an environment including a number of urban areas the local governments of cities inevitably should be developed to innovative strategies for providing better understanding on implementation of regeneration requirements in sustainability. Depending on these innovative strategies “Plenty of Western European and US cities have introduced flagship or major event projects as a catalyst for reviving the changing spatial fabric of former industrial areas, waterfronts and old inner city areas. Some of those projects have significantly indicated true contribution of making use of culture-driven place marketing strategies to urban regeneration in terms of social, economic and physical aspects such as improving the places’ image; improving the quality of life and social cohesion; stimulating the redevelopment of brownfields; increasing employment; increasing land values and attracting visitors and inward investment” (Yalcintas, 2012).

According to the United Nations World Urbanization Prospects; “The 2011 Revision, between 2011 and 2050, the world population is expected to increase from 7.0 billion to 9.3 billion. At the same time, the population living in urban areas is projected to gain 2.6 billion,

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Ridvan Ertugrul Yildirim, Ali Erdem Ozcelik, Ebru Colak, Recep Nisanci and Aziz Sisman (Turkey)

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passing from 3.6 billion in 2011 to 6.3 billion in 2050. In fact, the world urban population is expected to rise from 52 per cent in 2011 to 67 per cent in 2050. Related to this development, the number of megacities, usually defined as metropolitan areas with a total population of 10 million or more people, is increasing worldwide. And as a result, the rural population is projected to start decreasing in about a decade. While in developed countries urbanisation has mainly taken place in the second half of the 19<sup>th</sup> century, developing countries are now in the middle of their urban growth. The highest growth will mainly occur in the cities of Asia and Africa, in areas that are now more than two-thirds rural and by 2050 will be two third urban” (Friesecke et al., 2012). To evaluation on the main objective of ongoing urban regeneration policies and implementations, both the legal frameworks and specific legislation should be enabled to implementation on development of major urban-regeneration activities and their jurisdictional level under national or regional administrative institutions. In this purpose within the regulatory provisions for direct public needs and urban regeneration, it should be covered administrative and spatial management and also its funding (Espanola, 2010).

## **2. REQUIREMENTS AND APPROACHES FOR URBAN REGENERATION**

The urban areas are similar to the living organisms. Based on increasing population in time, natural disasters and bad construction are subject to the urban regeneration as inevitable. In this situation, urban regeneration becomes a key factor for ensuring the development of regeneration components and addresses the requirements of the modern city planning in global world (Sisman and Kibaroglu, 2009). “Urban regeneration is defined as a spatial strategy in which prestigious urban uses have been increasing through private sector investments in public areas”. These developments provide the new opportunities for improvements of lower income groups and of central areas in developing countries. For the purpose of restructuring and constituting the spatial requirements of shaping the cities at the regional, national and global level, extended urban regeneration projects are designed with the aim of creating desirable urban areas, mostly from deserted industrial areas in the city center. Thus urban regeneration is a major tool for restructuring of cities as a governmental driven urban spatial strategy (Güzey, 2009). The land provision, construction of buildings and infrastructure with all the social facilities are major components of urban regeneration projects focused demands of projects. In addition, providing financial and administrative contributions are defined as the key actors of the regeneration process. Administrative units provide to create the relation between urban - regeneration projects and other sectorial actions and applications such as raising employment rate, education, socio-economic and environmental integration for sustainability, mobility, environmental quality, etc. Urban regeneration is usually developed to improve sustainable solution for both current needs and future needs and research within the “urban pathology”. In this context, it is essential to provide “the most common motivations for urban regeneration, whether it effectively corresponds to some kind of urban pathology or rather constitutes an overall response, a general interpretation of the construction process within the city's territory” (Espanola, 2010).

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The Requirements Framework for Location of Urban Regeneration Areas: Case Study of Trabzon Industrial 3/16 District in Turkey, (6986)

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## 2.1 The Relation between Urban Development and Urban Regeneration

The urban images are generated or constructed as a component of the global economy. Today, one of the most important issues in urban regeneration is creation and understanding of the relation between urban development and urban planning projects and initiatives within the aspects as politics, culture and markets. “The development of large areas formerly occupied by industrial plants and harbours is seldom considered a situation in which legal action is justified. The buildings in these development projects have generally been tackled as single heritage monuments (industrial or transport halls); therefore, many of the adjoining structural elements, which represent disseminators of historical information, functional contexts and atmosphere, have been lost. In accordance with the dominant architectural modes today, the planners have primarily wished to accentuate the contrasts between old and new building forms. The integration of dynamic urban contexts has not been considered, and the practice of regarding the urban building heritage as time-and-place specific assets to enable the creation of new activities and attractions has only partly been put into effect” (Swensen, 2012). Urban regeneration ensures improving city neighborhoods and districts for siting of integration old and new images within the criteria essential for sustainability. And also urban regeneration is defined as a new concept for urban planning (Jeong et al., 2010). The general concept of urban regenerations enables both development of regional, national projects and urban planning at local levels. On the other hand, “in planning process and in regeneration projects depending on the context, deprived area/neighbourhood is defined according to specific analysis covering the social and economical indicators of the population and measurable characteristics of buildings like age, construction material and purpose of use. That is, in macro level, urban regeneration in our country targets economic prosperity, social balance and a healthy environment, matching with the sustainable development criteria” (Española, 2010).

### 2.1.1 Development Process of Transformation in Coastal Urban Areas

With the transition from industry to service sector in 1970s, many traditional economic activities drift into a state of crisis. Strategies for the production of new dwelling were replaced by those aiming at regaining the abandoned coastal or other old industrial areas within the context of the new world order. This balance which shows the variability between economical and social objectives and policies forms a basis for the transformation of coastal urban areas. Coast, as it was in the past, play an important role in the reorganization of the city and determination of city’s new role and make great contribution to cultural, social and economic developments of the city. This potential is very important due to the reasons such as distance to central business area, transport links, cultural values of coastal areas, its relation with the nature (its theme) and all factors contributing to the picturesqueness of abandoned coastal areas. In this context, transformation projects are important tools among the renewal approaches used for the retrieval of lost urban areas. These areas are handled with various urban regeneration approaches (regeneration, re-functioning and etc.) and integrated into the

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The Requirements Framework for Location of Urban Regeneration Areas: Case Study of Trabzon Industrial 4/16 District in Turkey, (6986)

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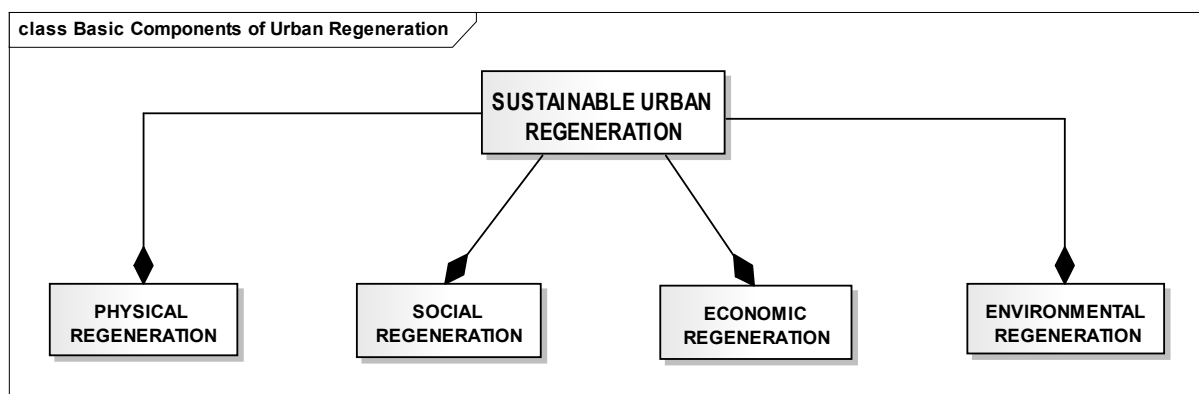
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city as original and attractive places. Considering the essence of this new situation, it reflects a significant change in the spatial form. What makes it associated with today's cities is the transformation of these abandoned coastal areas to large scale residential spaces, public parks, festival grounds and cultural, entertainment and tourism areas. Trends in reconsidering the coastal areas in North America in the 1970s began to be seen widely in European port cities in the 1980s. Urban regeneration approaches created with the aim of restoring these spaces were approved in the discipline of planning and also supported by national and local authorities. Factors such as new economical policies and formations, developments in communication technology and economic potential of coastal areas and the corresponding costs of transformation process and market-based planning approaches serving these policies add great variety to the urban regeneration models which were applied in the process and bring about different organizations (Yerliyurt B., 2008).

## 2.2 Major Components of Urban Regeneration

“Urban regeneration process briefly consists of analysis, implementation and the outputs. The economic, social, and environmental analysis, the project is implemented in an individual area taking into account the internal and external drivers of change. The outputs of the urban regeneration process can be grouped under five headings; neighbourhood strategies, training and education, physical improvements, economic development and environmental action. Neighbourhood strategies include area-based approaches, local social, economic and environmental facilities, and community-led planning. Training and education consists of capacity building of the local people, support to educational facilities and schools, enhances research and development. Improvement in the city-centre, housing areas and estates, good quality urban design can be counted under physical improvements. Especially outputs in physical improvements, training and education, and economic development contribute to the urban spaces’ quality to attract creative economies” (Goksin&Muderrisoglu, 2005). “Urban regeneration projects aim to foster the well-being of a city by bringing lasting improvements in the physical, social, economic, and environmental aspects of an urban area” (Yu and Kwon, 2011). The basic aspects of urban regeneration are shown in Figure 1.



Adapted from: (Korkmaz Ö., 2013).

Figure1. Basic Components of Urban Regeneration

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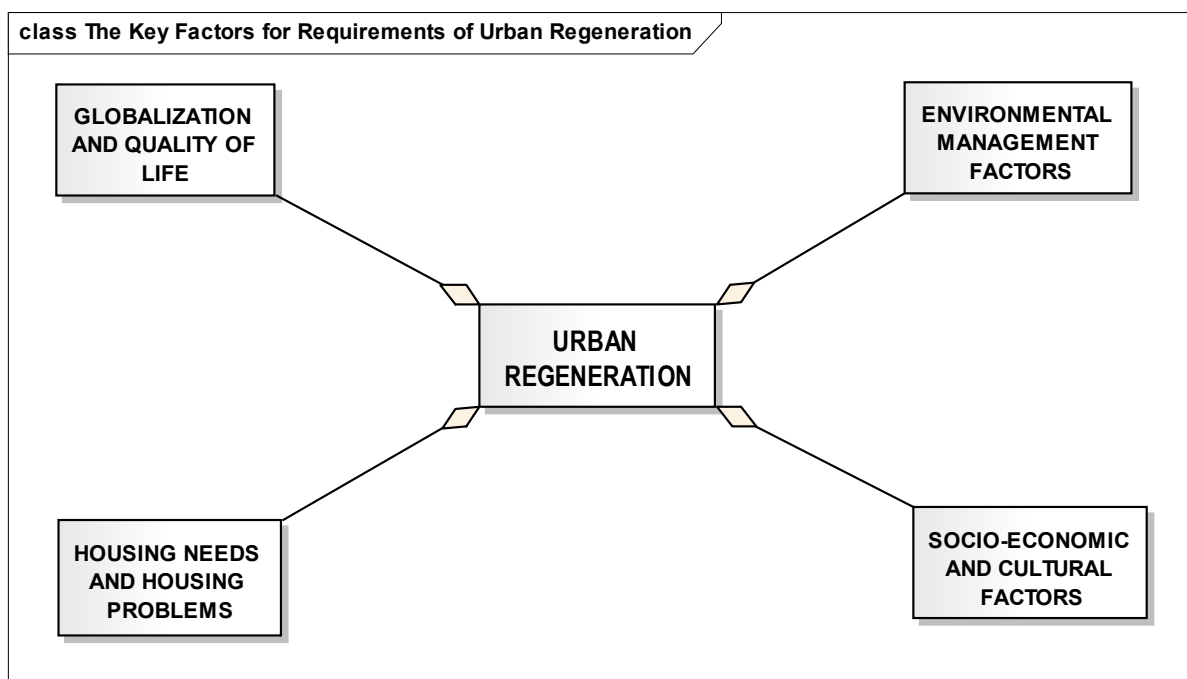
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“Urban regeneration is a holistic, comprehensive and integrated approach that embraces three aims: economy, equity and environment. In other words, its aims are maintaining economic competitiveness, reducing inequality, protecting the environment and suggesting a new generation of partnerships among public and private sectors and non-governmental organizations based on more equal relations. More specifically, this concept is related with supplying sustainable development, preventing physical decay and preserving historical fabric, revitalizing economic life, improving quality of architecture and urban life, stimulating cultural dynamics and enabling participation of relevant actors in all scales of the regeneration process. Many professionals emphasize that the success of an urban regeneration project depends on the strong relations among different dimensions, especially social and organizational aspects. Also, the importance of long-term local partnerships, the potential of renewal based on cultural aspects, development of social inclusion policies and fostering social capital are emphasized. In summary, it is clear that regeneration must be more than merely physical renewal and that it must encompass social, economic and environmental issues in a more integrated and responsive way” (Polat and Dostoglu, 2010). In this context the key factors for requirements of urban regeneration projects in line with the social, economic and environmental issues are shown in Figure 2.



Adapted from; (Uslugil, 2010).

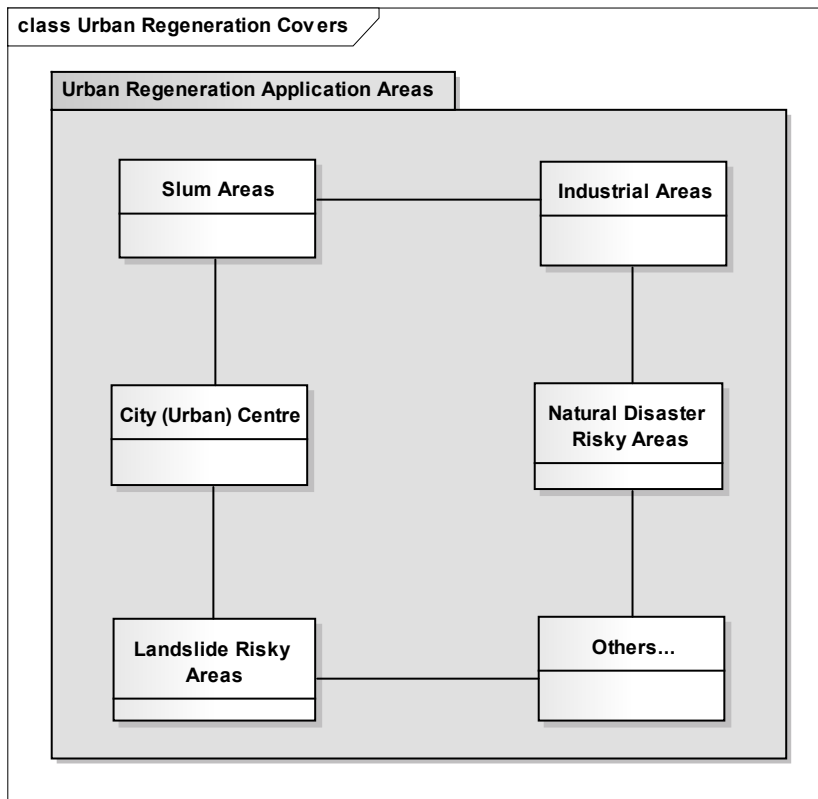
Figure 2. The Key Factors for Requirements of Urban Regeneration Projects.

### 3. THE GENERAL FRAMEWORK OF URBAN REGENERATION IN TURKEY

Urban regeneration is the conversion of a property. In other words, it is the transferring of the value of real estate owner to the second or third dimensions. Both residence and city is definitely for people. Articles 23 and 56 of Turkish Constitution emphasize the necessity to provide social and economic development and to achieve reliable and systematic urbanization and to live in a healthy and balanced environment. Therefore, urban regeneration is a constitutional obligation. In consequence of the disasters occurred in recent years, the building owners demand the authorities to take the necessary measures to live in safe buildings. In this context, urban regeneration and Construction Inspection Laws serve an important purpose. In recent days, one of the significant legislative regulations occupying the country's agenda is the "Law on Transformation of Areas under Disaster Risk". The aim of this law is the transformation of the areas under disaster risk, demolition of disaster risk-bearing buildings and the creation of livable areas across the country. Having more than 110 thousand buildings heavily damaged or leveled in the earthquakes occurred in 1999 expose the importance of the law. As can be understood from its title, the law is focused on the transformation of areas under disaster risk and its contents were prepared in this direction. Considering the fact that urgent transformation of areas under disaster risk in our country is of vital importance, it is obvious that the draft is a step in the right direction. However, this is not enough. The scope of disaster is required to be extended. Urban fabric formed to present is a kind of urban disaster itself. Therefore, non-improved (unplanned) formations should also be considered. Achievement of urban regeneration applications depends on the following criteria; proper identification of transformation objective, having a judgment process of transformation supported by the community, having practical and transparent transformations which were planned in association with other sectorial policies and upper scale plans, proper determination of the criteria for right ownership, inclusion of right owners and other participants such as tenants and tradesmen living in the transformation area in the process and physical renovation, analysis of socio-economic and cultural texture and having sustainable transformation projects which protect the citizens from cultural corruption and which is compatible with environmental principles and policies. Law on Transformation of Areas under Disaster Risk is also important in terms of enabling the citizens being included in the transformation projects and requiring qualified majority (2/3) for the protection of property rights. It is clear that the aforementioned law will provide a significant contribution to surveying engineering. The most important ones are value-based planning application and transferring of development rights. The new regulation covers these issues (Nişancı, 2012).

### 3.1 Determination of Urban Regeneration Areas in Turkey

At first in general the urban regeneration projects have to cover application areas as shown in Figure 3.



Adapted from; (Demirkiran, 2008).

Figure 3. Urban Regeneration Application Areas.

Administration will have the right, in other words discretionary power, to make choice in the construction of new residential areas, technology parks and social facilities. But by force of not having unlimited discretionary power, the municipality should use its right of choice in accordance with the principles such as public interest, "urbanism and planning principles" and service requirements. Therefore, the municipality should be able to put forward its legally valid justifications in the identification of areas selected. As required by the regulation in article 73 of Municipal Law, municipalities have both personal jurisdiction and discretionary power in the implementation of urban regeneration applications. Because the works to be done by the municipalities in earthquake zones for the protection of historical and cultural texture are clearly defined but applications in other issues were left to the discretion of administration. In this case, the municipality's decision and practices contrary to the regulation on earthquake zone, ancient city and historical and cultural texture decisions can be directly canceled. Because the administration's power is bounded and when the legal reasons develop, the administration should take the necessary action immediately and do what is

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needed to be done. However, decisions and applications for other places can be cancelled by the administration due to the reasons such as not having public interest or having decisions and implementations inconsistent with service requirements (Ayyıldız, 2010).

### 3.1.1 Urban Regeneration Occurred as a result of withdrawal of Industrial Areas from City Centre

In industrial cities, because activities related to industry are performed, these cities become places deprived from social and cultural activities in time. Employees in these cities often live in poor conditions around industrial centers or dwell in suburban areas outside the city center depending on the conditions at that time. Although transportation of these people by public transport vehicles such as metro or bus seems to serve the process of being a world city, the actual purpose is to achieve commodification of global effect by keeping these non-social masses in suburban settlements. However, these lands will be incorporated in city center and gain value in the future and citizens in these settlements will face alienation due to the addition of these lands to the city and finally will be forced to leave from the neighborhood. Urban regeneration projects to be implemented at the end of this process will convert old factories in these areas which are lack of historical texture into museums or parks (Uslugil, 2010). Industrial areas founded in places near immigrant receiving cities are incorporated into the city in time due the rapid urbanization. These industrial areas within the city lose their functions and vitality in time or are abandoned spontaneously or people are forced to abandon these settlements by local government units with the claim that they threat public health. In both cases, ruins occur in industrial areas. The potential benefits of these ruined regions formed as a result of withdrawal of industrial areas for the city and the citizens expose the necessity for renewal. Industrial areas in Bursa province, an immigrant receiving industrial city, abandoned spontaneously or moved out of the city with the claim that they harm to public health. An example of transformation of industrial areas which were moved out of the city is the Istanbul Kartal urban regeneration Project. Urban regeneration projects have been implemented in this area since the end of 2007. The aim of this project conducted under the leadership of Istanbul Metropolitan Municipality is to transferring of industrial areas that threaten human health to different places. It is also aimed to build new trade centers that will offer employment opportunities to the people living in the region (Demirkıran , 2008).

## **4. URBAN REGENERATION OF TRABZON PORT-INDUSTRIAL AREA AND NEIGHBORHOOD**

Within the scope of this paper study, port-industrial area of Trabzon province located in the Eastern Black Sea Region of Turkey was determined as study area. Primarily, approaches for urban regeneration projects applied in the coastlines in both Turkey and all around the world were examined and their significance in the evaluation of urban regeneration applications were assessed. In addition, within the scope of the study, the criteria of urban regeneration in the built environment and sustainability highlighted in the related literature were determined systematically and thus a framework for the evaluation of urban regeneration projects was generated.

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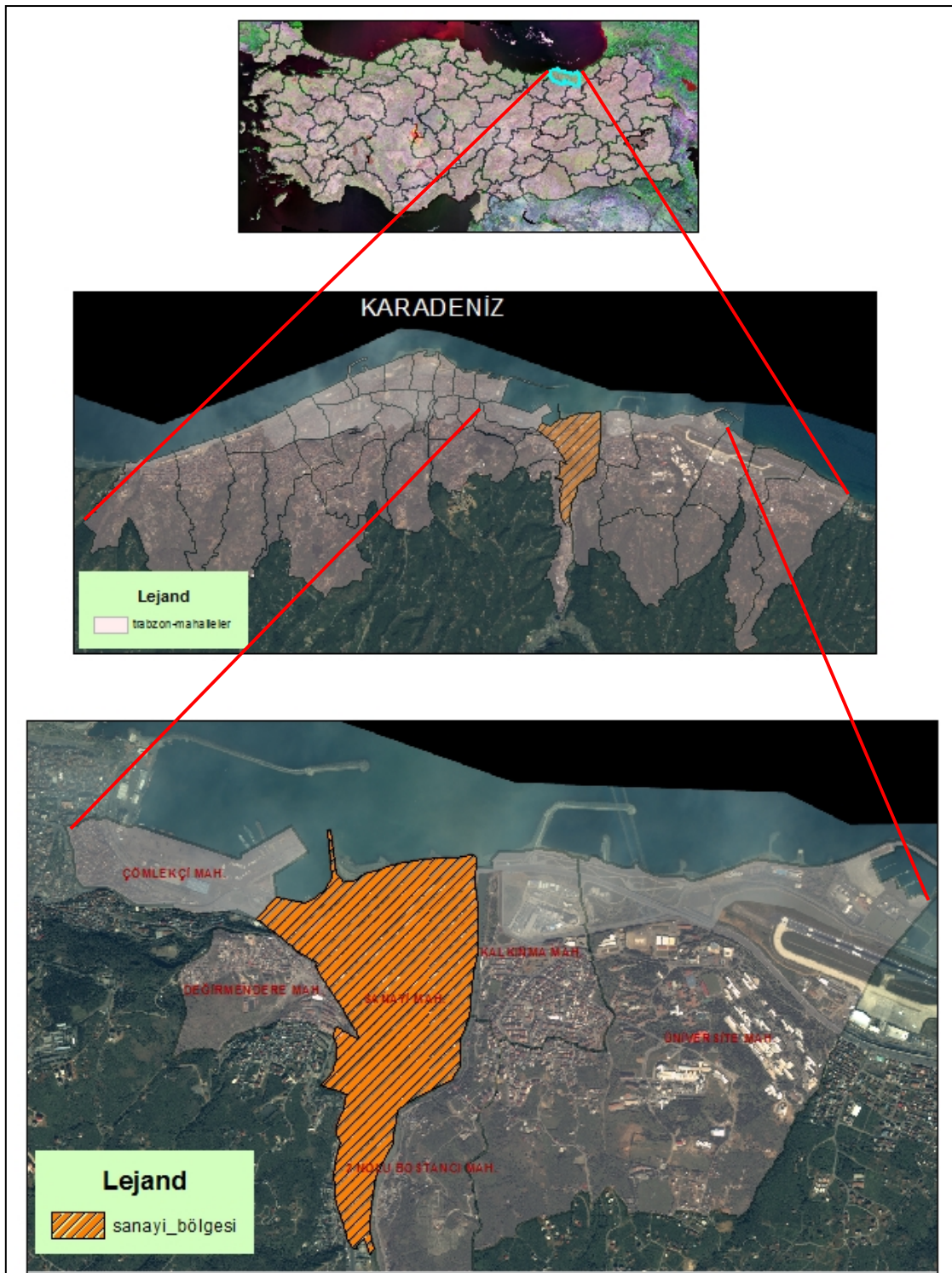
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#### 4.1 The Location and Boundaries of Study Area and its Environment Relation



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Ridvan Ertugrul Yildirim, Ali Erdem Ozcelik, Ebru Colak, Recep Nisanci and Aziz Sisman (Turkey)

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Figure 4. The Location of Industrial District and Neighborhood in Trabzon City.

Industrial district of Trabzon, subject of study area, (Figure 4) is surrounded by Degirmendere district (neighborhood) in the south, Kalkinma and University districts in the east, Comlekci district in the west and Trabzon coastal road in the north. In addition, having the industrial zone located in a place where the roads passing through Trabzon port, Trabzon bus terminal, Trabzon airport, Karadeniz Technical University, Farabi Hospital, Forum Shopping Mall and neighboring southern provinces are intersected makes the region a center of attraction. Topography of the land and its general form of settlement is directly associated each other. Whether having a soft or hard topography affects the transport relations, the way of structure construction and thus intensity and the extent of changes in city silhouette. In this context, coastal urban areas of the Eastern Black Sea Region have been expanded by sea embankment. Within the scope of this study, we conducted a field survey which evaluates the residential and function areas of Degirmendere and Comlekci neighborhoods. The elementary idea which forms the basis of this assessment took shape in the axis of "urban regeneration" concept. The elementary idea of this study is to observe the developments emerging in any point of transformation process of these areas (Comlekci Neighborhood) and to obtain analytical data to be used as inputs of the projection. Natural and man-made structures and environmental data in this area were overlaid and the borders of study area were determined. Data related to the study area were obtained by evaluations and observations of the region as well as satellite images. As a result of the findings and observations, the study area involves a general structure and land use in the related region. In general, study area is surrounded by three regions namely, coastal highway running parallel to the coast in the north of the study area, the city center and the port in the west and the university and the airport in the east.

## **4.2 Analytical Overview to the Entire Area of Transformation**

Starting with the urban and country locations of the regions in the study area, it was aimed to develop a physical, social and economic profile of these settlements. The scope of the study includes residential areas, commercial units, amenity spaces and roads which are expected to be affected primarily from the urban regeneration scenarios to be applied in industrial regions. Identification of structural characterization of each section is of vital importance for the better understanding of new structure that will arise as a result of the transformations in the city.

### **4.2.1 Analysis of Physical Structure**

In the physical structure analysis performed throughout the study area, building/parcel/block scale investigations were made. Demographic features and environmental factors were identified by examining the function areas, story height, building conditions and building construction techniques. The study area extends approximately 1.1 mile along the coastline and covers an area of approximately 107 ha. Depending on this information, general housing texture especially in the northern part of the region and overall land use and land use in the neighboring regions is summarized in Figure 5 and Table 1.

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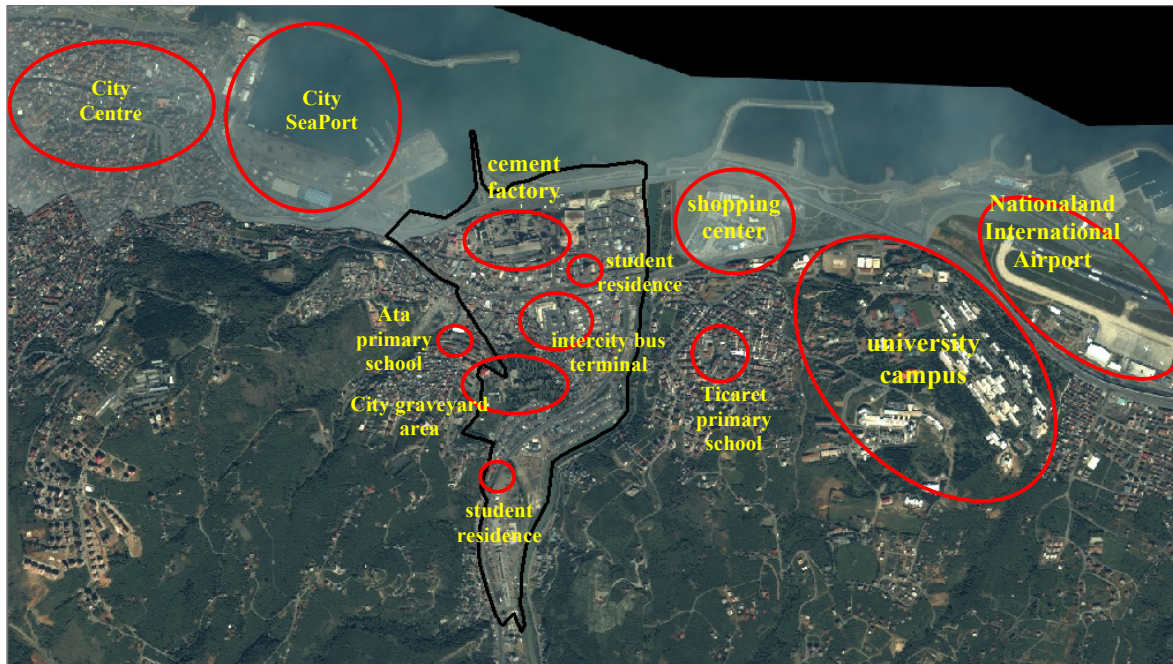


Figure 5. The Construction Structure over the Industrial District in Trabzon City

Tablo 1. The Construction Structure over the Industrial District in Trabzon City

In Industrial District	Over The In Industrial District
Intercity Bus Terminal	City Centre
2 Student Residence	City Seaport
Trabzon Cement Factory	University Campus
City Graveyard Area	National And Inernational Airport
Industrial Area	Ata Primary School
Residential Areas	Ticaret Primary School
Markets	Shopping Centre

## 5. CONCLUSION

Within the scope of this analysis, observation and identification studies were conducted to determine the user profile of residents in the study area concerning their social lives. Within the context of social dimension, one of the important aspects of urban regeneration process which was set for with its own internal dynamics and started with re-addressing of these issues, industrial district was broadly evaluated. In particular, as indicated in Figure 23, social

The Requirements Framework for Location of Urban Regeneration Areas: Case Study of Trabzon Industrial District in Turkey, (6986)

Ridvan Ertugrul Yildirim, Ali Erdem Ozcelik, Ebru Colak, Recep Nisanci and Aziz Sisman (Turkey)

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Kuala Lumpur, Malaysia 16-21 June 2014

and economic impacts of housing texture on land use in the surrounding area can be clearly seen. Especially, visual pollution caused by airport and bus terminal located in this region is in contradiction with the rapidly developing urbanization process triggered by university-based socio-cultural life. In addition, having some private dormitories (student hostel), residential and industrial areas in the same environment brings negative effects in terms of both cultural and social aspects. Considering these issues, having reinforcement in this part of Trabzon province make the urban development of industrial neighborhood is inevitable.

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## CONTACTS

Ridvan Ertugrul YILDIRIM  
Ondokuz Mayıs University  
Ondokuz Mayıs University, Geomatic Engineering  
Kurupelit/SAMSUN  
TURKEY  
Tel. +  
Fax +  
Email: [ridvan.yildirim@omu.edu.tr](mailto:ridvan.yildirim@omu.edu.tr)

Ali Erdem OZCELIK  
Recep Tayyip Erdogan University  
Recep Tayyip Erdogan University, Geomatic Engineering  
RIZE  
TURKEY  
Tel. + 904642237518/1177  
Fax + 90 464 2237514  
Email: [alierdem.ozcelik@erdogan.edu.tr](mailto:alierdem.ozcelik@erdogan.edu.tr)

Ebru COLAK  
Karadeniz Technical University  
Karadeniz Technical University, Geomatic Engineering  
TRABZON  
TURKEY  
Tel. + 90 (462) 377 3657

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Fax +90 (462) 328 0918  
Email: [ecolak@ktu.edu.tr](mailto:ecolak@ktu.edu.tr)

Recep NISANCI  
Karadeniz Technical University  
Karadeniz Technical University, Geomatic Engineering  
TRABZON  
TURKEY  
Tel. +90 (462) 377 2793  
Fax +90 (462) 328 0918  
Email: [rnisanci@ktu.edu.tr](mailto:rnisanci@ktu.edu.tr)

Aziz SISMAN  
Ondokuz Mayıs University  
Ondokuz Mayıs University, Geomatic Engineering  
Kurupelit/SAMSUN  
TURKEY  
Tel. +90 (362) 3121919  
Fax  
Email: [asisman@omu.edu.tr](mailto:asisman@omu.edu.tr)

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