

Evaluating the Ownership Structure in Land Regeneration Applications

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Key words: Management, Regeneration, Property, Regulation

SUMMARY

In Turkey, new legal and technical regulations and means of zoning enforcement are needed in land management. Considering the dense housing, difficulties in implementing the land regulations, raising enforcement standards in dense housing areas of the city, and creating a healthy and livable urban space, the reorganization of urban living spaces indicates the presence of quiet and urgent problem that needs solution. After a decade of confident policy with the support of engineering lobbies in the retrofitting of individual buildings, it has been observed that reliance on market demands for retrofitting was a mistake. The policy seems to have been reversed very recently to the other extreme of top down imposition of regeneration of vulnerable urban stock in batches. The Law of Transformation of Areas under the Disaster Risks (Law No. 6306) entered into force on May 16, 2012 due to the need of a legal regulation in order to reconstruction of buildings that pose a zoning risk in particular before the realization of any disaster risk. The main reasons behind the new technical and legal debates created along with this law are the lack of clear definition of the property transformation processes, and paying no attention to the requirement that people should be backed by a law enacted to ensure their participation in the transformation process, which is closely related to them. Within the scope of this paper, the basic concepts related to Land Regeneration were discussed, the way of implementation of the regeneration and the development of the regulation in Turkey were addressed, the property issues that may arise in the technical implementation of the law were discussed and the requirements for a successful land regeneration were uncovered and specified.

ÖZET

Türkiye’de uygulanmakta olan arsa ve arazi düzenlemelerinde kentlerde yeni ihtiyaçların ortaya çıkmasından dolayı; hukuksal ve teknik olarak bazı yeni imar uygulama araçlarına gereksinme vardır. Çarpık yapılaşmış, köhneleşmiş, altyapısı yetersiz ve niteliksiz, yasal ya da imara aykırı yerlerdeki mülkiyetin, yeni imar planı verilerine uygun olarak düzenlenmesi şeklinde tanımlanan, özellikli bir imar uygulaması olan kentsel dönüşüm, önemi her geçen gün artmakta olan bir konu haline gelmektedir. Kapsamlı ve ayrıntılı bir kentsel dönüşüm uygulamasını öngören 6306 sayılı Afet Riski Altındaki Alanların Dönüştürülmesi Hakkında Kanun 16.05.2012 tarih ile yürürlüğe girmiştir.

Bu bildiri kapsamında, kentsel dönüşümün temel kavramları üzerinden dönüşümün mülkiyet bakışıyla değerlendirilmesi kapsamında incelemeler yapılmıştır. Sürdürülebilir bir arazi yönetimi ile uyumlu kentsel dönüşüm uygulamaları için dönüşümün hukuki ve teknik boyutu irdelenmiş, mülkiyet, mülkiyet hakkı kullanımları incelenmiş ve ülkemize uygun uygulamalar için önerilerde bulunulmuştur.

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Evaluating the Ownership Structure in Land Regeneration Applications

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1. ELIGIBLE ZONING: LAND REGENERATION

The word regeneration is understood as reforming something spiritually, raising it morally, giving new strength or life to something, restoring lost qualities to something and finally growing again. A regenerated building, a regenerated part of a town, a regenerated city or regenerated society can be assumed as having the above mentioned aims. Urban regeneration can be defined as conscious, systemized and planned action concerning a certain section or totally of a town. Land regeneration is a featured zoning implementation in Turkey that can be defined as the rearrangement of properties in unplanned, slummed, legal or illegal areas that have inadequate and unqualified infrastructure and dense housing, sensitive to disasters and urban risks, according to new development plan data, and it becomes an issue of increased importance.

As the newest application of zoning applications, land regeneration is an ownership regulation in accordance with the planning and zoning data within built-up areas. Land regeneration contains development plan implementation, distribution of new ownership structures and land registration processes. Because urban regeneration applications are about using public power to regenerate urban spaces, regulatory justifications of the related laws can determine based upon the answer of why certain areas should be a part of regeneration applications. These justifications are; preventing the security risk of life and property, taking out the encountered problems of the urban living and enhancing the urban life standards by enhancing urban living qualities.

2. LAND REGENERATION REGULATION

In the 90's, central local administrations executed unsuccessful urbanization applications, and these showed that they're incapable of developing urban lands. In 90's developing organized, healthy and livable urban areas underlies the development planning and implementation. After the Marmara Earthquake which hit in 1999 revealed the necessity to re-evaluate urban transformation attempts. The regulation studies within the risky areas of disaster risks became prominent. In the direction of this basis, the main reason of the regeneration within the article 73 of the Municipal Law (Law no. 5393) is, the fail developing mentioned conditions during the structuring period of urban areas. This law predicts the roles and responsibilities of municipalities related to urban transformation and considered municipalities as the local element for urban transformation. But this article may cause scanting issues concerning the limitations of population and area prescribed by law as "the municipal council shall have sole authority to decide that the area to be declared as an urban regeneration and development area should be planned or non-planned areas with or without buildings on, specify the building height limits and density, require that the area size be minimum 5 and maximum 500 hectares, and the regeneration be executed in phases. More than one piece of land associated with the project area may be designated as an urban regeneration not to be less than 5 hectares in size". In addition to this there is no provision about the criterion definition or the institution that indicate the timeworn areas in the city. Related article takes its final form in 2010 under the title of urbanization and development areas. Within this amendment, any place located in the boundaries of the municipalities and contiguous area can be announced as urbanization and

development areas. Generally speaking, even, the purpose is to forming the legal infrastructure of regeneration applications in Turkey; the only function of this article relates only declaring the regeneration areas. With this and many aspects, mentioned amendment taken to supreme court for trespassing property right, equality right, fundamental rights and freedom.

The regulation studies after the earthquake on 1999, the regeneration applications for areas within the risk of disaster starts with the mentioned amendment for article 73 of the Municipal Law and proceeded with the Law No. 5366 on “Usage of Timeworn Historical and Cultural Real Property with Restoration and Protection”. And lastly, in 2012 the Law No. 6306 on Transformation of Areas with Risk of Disaster was entered into force for urban transformation as a legal instrument to be executed in all places under the risk of disaster in Turkey.

3. IMPLEMENTATION AND THE EVALUATION OF THE ‘LAW ON THE TRANSFORMATION OF AREAS UNDER RISK OF DISASTER’

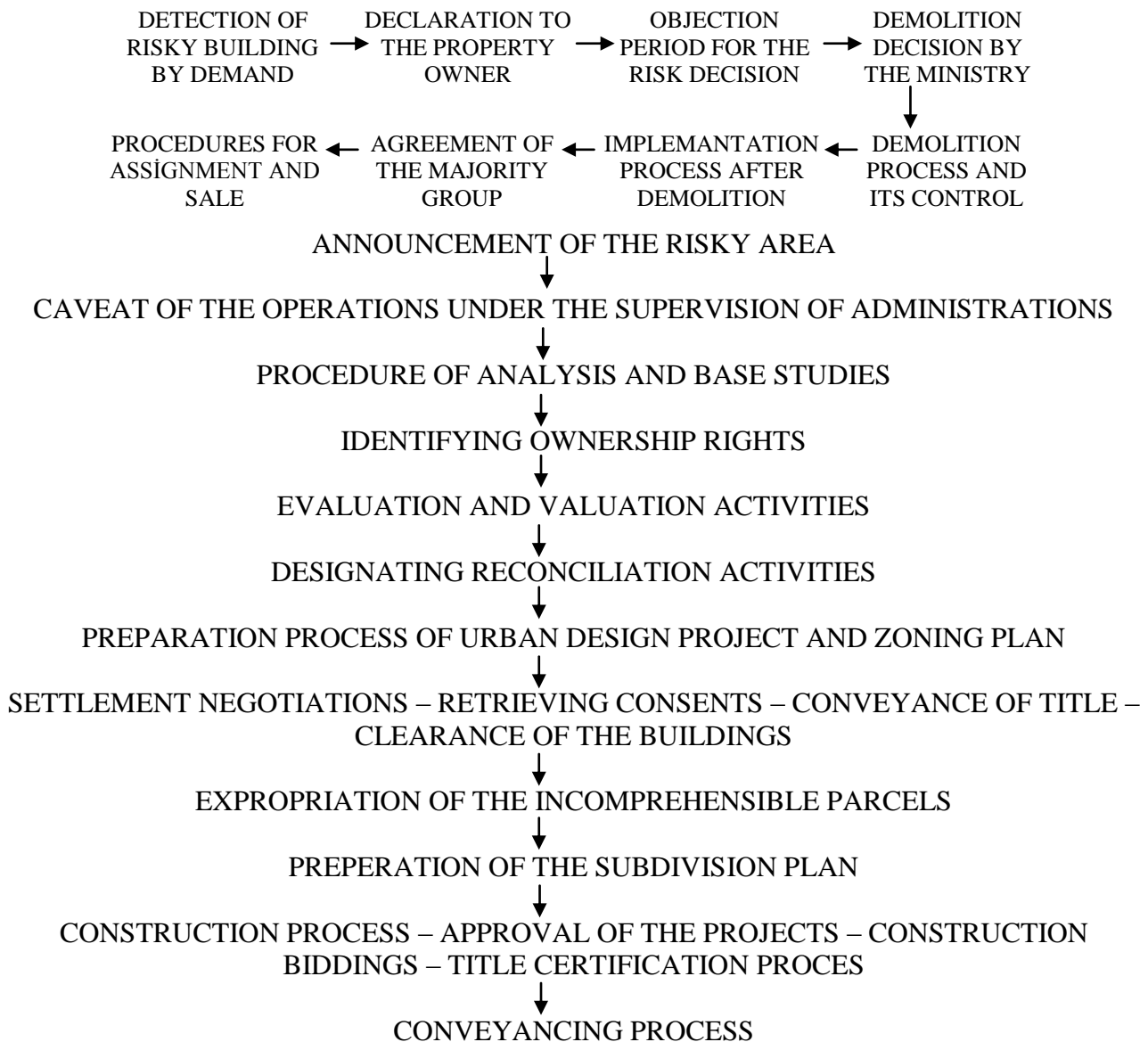
The Law of Transformation of Areas under Risk of Disaster (Law No. 6306) entered into force on May 16, 2012 due to the need of legal regulation in order to reconstruction of buildings that pose a zoning risk in particular before the realization of any disaster risk. Primarily the Urban Transformation Law has two basic subjects: risky construction and risky area. The owner of the house has to apply to the land analysis companies which have to be entitled by the Ministry of Environmental and Urban Planning. In case the analysis of the building is resulted as risky construction or risky area or reserved area, the final report will be notified to the Municipality and the subject building will be collapsed in 60 days off the written notification.

Within the expected context of the Law 7 million buildings will be re-constructed. The first step of the practice started in 35 cities of Turkey concerning around 75 different areas and 3169 buildings on 05.10.2012. The ministry will start to collapse risky buildings beginning from the first degree earthquake areas, including the cities Adana, Afyonkarahisar, Ağrı, Amasya, Ankara, Aydın, Balıkesir, Bilecik, Bitlis, Bolu, Bursa, Çanakkale, Denizli, Düzce, Edirne, Elazığ, Erzurum, Gaziantep, Hakkari, Hatay, İstanbul, İzmir, Kahramanmaraş, Kırıkkale, Kırşehir, Kocaeli, Malatya, Nevşehir, Samsun, Sinop, Tekirdağ, Tunceli and Van.

The main reasons behind the many new technical and legal debates created along with this law are the lack of any clear definition of the property transformation processes, and paying no attention to the requirement that people should be backed by a law enacted to ensure their participation in the transformation process, which is closely related to them.

The second step of the regeneration process besides the legal part of regeneration applications is the implementation process grounded by the regulation. Within this basis, the implementation procedures of risky areas and buildings at risk schematized below with the main lines before discussing the property issues that may arise in the technical implementation of the law.

Schema 3.1 Building at risk process



3.1 Impact of the urban transformation law on property ownership

Obligation to subject no-risk structures to the project:

According to paragraph 7 of Article 3 of Legislation no. 6306, "Buildings that are not deemed high-risk within the boundaries of the designated area for the implementation of this Act are also subject to the provisions of this Act, if the Ministry finds it necessary in terms of execution integrity."

The general rationale references Articles 23 and 56 of the Constitution, the right to live in a stable and secure environment and highlights the facts about earthquakes in Turkey. However, including

non-risk buildings within this Act "in terms of execution integrity" does not constitute a sufficient rationale for such an interference with the right to property. Such intervention power connected to a vague definition such as "deemed necessary by the Ministry" contradicts certain legal concepts like "certainty", "legality", and therefore, the "rule of law" principle.

Restriction of Savings:

According to the third paragraph of Article 4 of the Legislation, "If requested by the Ministry, TOKI or the Administration during implementation, services such as electricity, water and gas shall be suspended for the structures that are high-risk or are located in risky areas." With regard to this paragraph, the rationale states that: "In addition, in order to achieve the projected objective, if it is needed and demanded during the execution of the legislation, provisions determine that risky structures and structures in risky areas shall not be provided with certain services, and those that are being provided shall be suspended."

Various decisions of the Constitutional Court have stated that the uncertainty caused by restrictions for unknown duration renders the right to property unusable. The fact that the Court has ruled in favor of cancelling such arrangements on the rationale that the objectives regarding public good and other purposes should not lead to limitations that infringe on the fundamental right and render it unusable, based on Article 13 of the Constitution, is important in terms of analyzing the legal regulations. However, as it is expressed in the rationale, the objective has been to impede the citizens from continuing to live in structures that are deemed risky for their safety, and their right to life has been considered. In this regard, the said restriction is an intervention compatible with law with regard to overriding public interest and public safety for risky structures. If, in fact, the administration does not take such measures and a disaster results in loss of life and property in the future, it will involve responsibility by the authorities. The State, therefore, may restrict individuals' right to property even if it means suspending electricity and water services, in order to prevent future casualties and fulfil its positive obligation to the individuals' right to life.

Decision-making with at least two-thirds majority:

Under the heading of "Operational Processes", Article 6 of Legislation no. 6306 regulates that after the demolition of risky buildings, the decisions on further processes shall be taken with the majority vote of owners in proportion with the shares they hold. According to the Executive Regulation Article 15, the procedure is briefly as follows: Upon the request of either the administrator or the auditor or one-third of flat owners, the owners are to be called for a meeting via notary notification, in order to evaluate the operations regarding parcels. At this meeting, in case of failure to attain unanimity of all owners, firstly, the value of the risky structure shall get assessed by licensed appraisal institutions registered to Capital Market Council, and unanimity shall be attempted in light of this value. According to the procedure in question, in case of failure to agree unanimously, the operation to be realized shall be decided by a two-thirds majority of shareholders in proportion with their shares.

These regulations constitute an interference with the right to property. Because according to regulations, the shares of the one-third of shareholders who do not agree on the decision will be sold in an auction to, primarily, the shareholders who have taken the decision with two-thirds majority, and in case this sale does not take place, it will be registered ex officio in the name of Treasury,

paid for by the Ministry. This means restricting the owner's authority to economize that is attributed to him through property rights.

Instead of terminating the property rights for individuals who do not accept the decision taken by the two-thirds majority, this allows protecting the rights of those with limited financial means and ensures the possibility of an administrative process that will lead to them getting a dwelling with actual value. Making legal arrangements in this regard is a requirement for compatibility with the Constitution and the Additional Protocol No. 1 of the European Convention on Human Rights.

However, if this intervention is prescribed by law and necessary for a legitimate purpose, we can say that it is an appropriate response with regard to the law.

Urgent Expropriation:

According to the second paragraph of Article 6 of Legislation No. 6306: "In case of not attaining an agreement with two-thirds majority within 30 days following the notification of the land owners, the Ministry, TOKI or the Administration may resort to the urgent expropriation of real estate in the ownership of real persons or private legal entities. Expropriations to be made under this legislation are considered expropriation to realize settlement projects in accordance with the second paragraph of Article 3 of Expropriation Act No. 2942 dated 04.11.1983, and the payment of the first instalment is to be made for one-fifth of the amounts determined by the aforementioned provision. According to this provision, failing to achieve at least a two-thirds majority is essential in order to be able to resort to this model. Thus, when at least two-thirds of the majority is achieved, the procedure in the first paragraph should be followed.

Even though the expropriation procedure is followed, ultimately there is an interference with the right to property. Because expropriation is done for the public good without seeking the owner's consent. Besides, since the process is faster for urgent expropriation and many procedures are skipped to be completed later, de facto ending the right to property of an individual is decided immediately. Aforementioned Article 27, which states that "... real estate may be confiscated", is an indication of this. Of course, even if this is an urgent expropriation procedure, it must also be done in the public interest. In addition, some conditions have been provided in Article 27 of the Expropriation Act for urgent expropriation. Accordingly, this decision that applies to Legislation No. 3634 can be taken if there is a need for homeland protection, if the Council of Ministers decides on the urgency or if extraordinary circumstances call for special legislation.

Since the individuals' right to life is on the forefront with regard to risky structures, and the risky structure needs to be vacated promptly, we can say that such arrangement is positive in a sense. However, an amendment to the legislation would be appropriate to state that urgent expropriation is foreseen only for risky structures. Because no such urgency is in question for no-risk structures.

3.2 Impact of the urban transformation law on property ownership

Urban areas that constitute the basis for urban transformation are slum regions, areas with high concentration of illegal apartment buildings, high areas with natural risk of destruction and parts of the city that age, get worn out or damaged, grow in an unhealthy/illegal way or have been waiting for evaluation above the potential land value, and parts of the city where poverty is widespread. The economic value of these parts of the city, where generally low-income individuals live, has decreased significantly over time.

Even though the economic value of the transformation areas is low, as stated above, the revitalization of these areas that are generally located by the centre of the cities causes a significant increase in value. This increase in value is extremely natural and sometimes an increase in value is also important for the financing of these projects. However, it should be emphasized that focusing transformation projects to profit, should be questioned in terms of city planning, and the purposes and functions of transformation. Value increase through urban transformation cannot be an objective, it can only be a result. Otherwise, serious doubts are raised on the public interest in urban transformation.

The basis of agreement for the parties in urban transformation should be the distribution of the value created through plans and the public in a transparent manner that is acceptable to the parties. For this reason, it is an essential requirement that the distribution values created by participation right of rights holders and the development plans, which should be shared between the rights holders, the investor and local government be reliable. This requirement can only be realized through the "Value-Based Urban Transformation Model" mentioned in the book Urban Transformation written by Prof. Dr. Enver Ülger.

3.3 Impact of an accommodating and participatory transformation implementation on property ownership

Another important issue in the urban transformation process is the scale of participation, and related to this, the question of who and what the parties that demand participation accordingly are representing, in other words, whether they have representative attributes. Evaluating participation to the process of determining and realizing macro plans for the city (environment plan, and master plans, such as transport and infrastructure master plans) on the same scale as participation at the project level does not appear correct. One requires more participation by professional organisations (Turkish Association of Architects and Engineers and related chapters, such as commercial, industrial and local business chambers), while participation to preparation, decision-making and application on a project level should include all parties (property owners, tenants. etc.).

Local conditions shaping the project in urban transformations are based on the active directing of the process by local actors, in other words, the principle of participation. In particular, individuals should not be excluded from such a process that is related to their fundamental rights and freedoms, whose effects could directly affect their lives and their future. However, participation is as much of a social, cultural and economic issue as it is a corporate issue, and its realization depends on certain conditions. First of all, it is necessary that those residing in a certain place participate in the planning process and are presented with options they can evaluate regarding working conditions and accommodation; this is the first condition. The second condition is that the actors have the leverage to be able to negotiate these options and the ability to bear the economic burden. The third condition is that they have full information regarding the process to influence the planning process as well as organizational skills. Informing the local population fully on the issues facing the area to be transformed will undoubtedly have a positive impact on both the diagnosis of the problem and the process of creating necessary urban policies, as well as the execution of these policies.

3.4 Sustainability of urban transformation and the impact of sustainability on property ownership

It is extremely important to ensure the continuity of the benefits achieved after the realization of the transformation projects. Undoubtedly, achieving sustainability is largely related to the correct execution of the preparation and implementation phases of the project. As demonstrated in this study, for example, it will not be possible to sustain a project whose execution neglects its social dimension. At the same time, following the completion of the project it may be necessary to monitor its development, to detect and intervene with any glitches on time, to complete the remaining elements that were insufficient or it may require the introduction of some new measures. As a matter of fact, successful urban transformation projects are developed with a flexible concept of planning, and the strategy and policies of transformation are subject to revision depending on the economic, physical and environmental conditions that change over time.

4. CONCLUSION

The lands that are subject to property in Turkey are arranged in a dual structure and understanding. Rural and urban land arrangements are done with development plans that are different regarding purpose and content. Thus, development plans form the legal and technical basis for intervening in and arranging property.

Today, there is need for a certain approach in zoning arrangement and implementation that is compatible with the sustainable land paradigm, which is inevitable to form. Zoning applications are an arrangement of property. It cannot be said that it is easy to execute zoning applications when there is no difference between the legal status of the property and property rights, and the status of circulatory use. No legal problems are evident in our country regarding the identification and registration of property and property rights to a large extent. However, it cannot be said that currently the property and property rights are used in accordance with the laws or zoning rules. Intensive constructions, problems relating to the implementation of land regulations, raising the equipment standards in zoning arrangements for intensively populated areas, whether planned or unplanned, the need for renewal or in cases of total demolition, construction, faced with the earthquake reality of our country, calls for an urban transformation agenda. This process is called "Urban Transformation". Urban transformation is a specific development application. In light of these property issues, global projects geared to building the infrastructure for urban life that can achieve a sustainable property transformation through urban transformation should start to be executed.

In our country, transformation issues are often reduced to the transformation of the physical space in responses against different transformation problems, thus ignoring the social, economic and environmental aspects of transformation. However, urban transformation can only succeed if, aside from being regarded as physical space transformation, it is dealt with a comprehensive and integrated approach, ensuring social and economic development, sustainability, and protection of ecological and natural balance. Places that will be created through urban transformation projects should be envisioned in a manner that can both meet the needs for dwellings that might collapse in an earthquake as well as the possible housing needs of cities. Making prompt breakdowns on resistance, value, ownership and use, as well as making a real estate inventory in a manner that forms the basis for urban transformation plans along with property analyses is of great importance regarding the decision-making process. As a result of this database to be created, urban

transformation zones should be declared; and based on the Earthquake Master Plans to be created in each city, Urban Transformation Master Plans should be established. Transformation implementation zoning plans should be created based on this master plan, and urban transformation projects should be carried out in stages in accordance with these plans. Therefore, considering the issues of the urban transformation projects thus far implemented, with a holistic approach, it can be said that in our country the success of urban transformation projects will depend on the detection of the urban transformation model that the unique physical, social, economic conditions of a certain urban area calls for, as well as the sustainability of the implementation. Obtaining healthy results from the implementation of urban transformation depends upon the formation of principled decision support environments (integrated urban planning, sustainable management style, multi-purpose cadastral infrastructure, inter-agency coordination, etc.) In such an environment and an urban transformation that will be realized under data organization such as land management, not only zoning parcels with infrastructure will be created, but also:

- Property issues will be identified with regard to their technical and legal aspects;
- Common objectives within institutional strategies will be determined;
- Land registry and cadastral documents that do not reflect the actuality will be transformed into a database for spatial information systems;
- Illegally erected structures or slum dwellings on the land will be replaced with healthier, planned/licensed structures;
- Rights in rem that are not suitable for planned construction due to distribution of shares or square footage will have found non-problematic, active use with 'real estate ownership applications';
- Areas of equipment needed by the population living in unit areas will be enriched, their operating limits raised.

During sustainable urban transformation projects, in light of policies regarding sustainable land management and urban land creation, the boundaries of protected areas for urban and rural lands, the rights of owners within zoning legislation, and the city character will have been defined. Urban transformation applications thus will allow the integration of urban settlements with the city by identifying the city's problematic areas in need of transformation.

Aside from the necessity of taking a holistic approach for an urban transformation project, steps aimed at the success of the project for various aspects, from finances to partnerships in project execution, should be planned and transformation programs should be prepared. For example, ensuring the personal participation of the locals in the neighborhood in order to realize their social transformation, could make a difference in the process of good urban transformation. Participation of the civilian population to the transformation process can be realized through reliably calculating the locals' participation and distribution values, and ensuring that the property circulation will be done in a fair manner. This can be resolved by making the aforementioned value-based method a legal obligation in zoning implementations. In order to achieve a property-based zoning implementation in accordance with the value-based method:

- Property, property rights and their use should be amended in all legislation, including the Turkish Civil Code.

- Integrated zoning legislation and a legal base related to the transformation applications intertwined with this legislation should be created, and in this context, a statute regarding this method should be established.
- Legal and institutional structures must be established regarding valuation, appraisal companies and appraisal standards, and their powers and responsibilities should be defined.
- Value maps that need to be updated periodically and that will constitute the basis for obtaining building values should be created for real estate across the country, and related legislation should be prepared.

Finally, it needs to be expressed that urban transformation is an urgent need in Turkey, and the projects implemented in this context are for the general benefit of the community. Legislation No. 6306 was created due to the fact that almost 6.5 million dwellings in our country are at risk from earthquakes, with the objective of demolishing and reconstructing them. Thus, while containing positive provisions, it has been drafted in a manner that intervenes in unlawful ways, and gives the Ministry overarching authorities, and has been implemented as such. However, within the context of urban transformation, the restrictions to be imposed on property rights should be done in accordance with the objective and purpose of this transformation, and no restrictions that go beyond the objective should be imposed. Otherwise, they will be infringing on property rights. Property ownership issues related to special law that is examined within the scope of the thesis should be taken into consideration within this context, and resolved as soon as possible.

REFERENCES

- 6306 Sayılı Afet Riski Altındaki Alanların Dönüştürülmesi Hakkında Kanun**, (2012), T.C. Resmi Gazete, 16 Mayıs, Sayı: 28309.
- 6306 Sayılı Afet Riski Altındaki Alanların Dönüştürülmesi Hakkında Kanunun Uygulama Yönetmeliği**, (2012), T.C. Resmi Gazete, 15 Aralık, Sayı: 28498.
- Çolak N. İ.**, (2013), Kentsel Dönüşüm Mevzuatının Hukuksal Değerlendirmesi, Kentsel Dönüşüm ve Çevre Konferansı, 7 Mart, Danıştay, Ankara.
- Danış D.**, (2012), Background of the Urban Transformation.
- İnam, Ş. ve Başarır, A.**, (2010), Kentsel Dönüşüm ve Toprak Mülkiyeti Sorunları, Toprak Mülkiyeti Sempozyum Bildirileri, Sf. 256-271.
- Kocalar A. C.**, (2012), Afet Riski Altındaki Alanların Dönüştürülmesinde İmar Planı Uygulamalarıyla Sınırlandırılan Mülkiyet ve İmar Haklarının Aktarımı, Tasarım + Kuram Dergisi, Sayı 14, Sf. 61-75.
- Uzun B.**, (2013), Kentsel Dönüşümün Mülkiyete İlişkin Yeni Paradigmaları, 1. Uluslararası Kentsel Dönüşüm Sempozyumu, 7-8 Ekim, Ankara
- Ülger, E.**, (2010), Türkiye’de Arsa Düzenlemeleri ve Kentsel Dönüşüm, Nobel Yayınları, Ankara.
- Yasin M., Şahin C.**, (2013), Kentsel Dönüşüm Hukuku, İstanbul Üniversitesi S.S.ONAR İdare Hukuku ve İlimleri Araştırma ve Uygulama Merkezi Yayınları, No: 2013/1, İstanbul.
- Yomralıoğlu T.**, (1997), Taşınmazların Değerlendirilmesi ve Kat Mülkiyeti Mevzuatı, JEFOD-Kentsel Alan Düzenlemelerinde İmar Planı Uygulama Teknikleri, Sf. 153-169, Trabzon.
- Yomralıoğlu, T.**, (2013), I. Uluslararası Kentsel Dönüşüm Sempozyumu Sonuç Bildirgesi, TMMOB Harita ve Kadastro Mühendisleri Odası, Ankara.

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