LAND READJUSTMENT EXPERIENCES IN TURKEY

URBAN LEGAL CASE STUDIES | VOLUME 3

UN HABITAT
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GLTN
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PREFACE

A core objective of UN-Habitat is to develop and disseminate knowledge and information about urban law, particularly through the mechanism of the Urban Legal Network, a chapter of the Global Land Tool Network (GLTN). To fulfil this objective, a series of informative papers has been produced to capture and share the experiences and findings from research and projects that can make important contributions to our understanding of urban law and development. The production of the series was supported by UN-Habitat's Urban Legislation Unit and the Urban Legal Network (ULN).

This publication is the third in the series and focuses on an area of significant interest to UN-Habitat: the potential of land readjustment as a tool to deliver serviced land at scale in developing countries. The potential benefits for urban development of a good land readjustment process and outcome are significant. These benefits include land value sharing as an effective means to distribute costs, enhance community engagement, and enhance capacity for authorities to reshape urban areas to meet current and future demands. These characteristics mean that land readjustment can improve working relationships between landowners, developers and public authorities, including through public-private partnerships. Importantly for UN-Habitat, land readjustment could do this while limiting the growth of informal settlements and addressing key needs of the poor, such as adequate shelter and affordable access to the economic life of urban areas.

The case studies featured here, on land readjustment in a number of urban centres in Turkey, provide an opportunity to learn about the potential, and the challenges, of land readjustment in an emerging economy. The cases presented in this publication yield useful information about managing land readjustment in the context of a developing but often complicated legal structure, where some elements of land readjustment law itself appears to deter municipal governments from using it because of financial compensation and service delivery implications. The report also provides insights into the dynamics and implications of land value sharing and the struggle to engage local communities.

We would like to thank Professor Sence Turk for her efforts, and her research assistant, M.Sc. student Aysun Özkan, for collecting data on the case study areas.

EXECUTIVE SUMMARY

The report explores the experiences and outcomes of a number of recent land readjustment projects in Turkey, where there is a long tradition of land readjustment despite a fragmented set of legal arrangements and the struggle of municipal authorities to implement infrastructure components. Land readjustment has often been used for the conversion of agricultural or semi-urban land at the urban fringe into urban land and in new development areas of cities. In particular, it has been used to upgrade existing illegal housing areas or to regularize land tenure, and for renewal of irregular and informal settlements.

This report is an examination of case study areas within the larger Istanbul urban area, as well as results from in-depth interviews with experts from the legal, survey engineering, and urban planning fields. The four case studies comprise the Şeyhli project, where land readjustment was used in a partly new development area of the city; the Aydınlı project, where land readjustment was used in a new development area; the Dolayoba project, where land readjustment was used to upgrade existing illegal housing and to achieve the regularization of land tenure; and the Ayazma project, where land readjustment was used in the renewal of irregular and informal settlements.

The case studies demonstrate some success in using land readjustment to create serviced urban plots and public service areas, and to remove land ownership issues. For example, over the four projects, a total of 606 cadastral parcels were converted to 1,283 serviced urban plots, and in the Şeyhli project, the average number of owners per plot fell from 6.25 to 3.36.

However, the case studies and analyses also highlight a range of challenges facing land readjustment in the Turkish context. These challenges – which include a dispersed legal framework, a lack of cohesion in planning and a dearth of social housing provision responses – are outlined below.

CHALLENGES TO LAND READJUSTMENT IN THE TURKISH CONTEXT

LEGAL COMPLICATIONS

Land assembly in the land development process in Turkey is realized in two ways. The first is state intervention through land acquisition methods such as expropriation or land readjustment. The state has the power to expropriate lands owned by individuals or legal representatives where the public interest so requires. The second method is through purchases by the state, private developers, etc.

The legal framework complicates some land readjustment processes. Article 18 of Reconstruction Law No. 3194 forms the legal basis for projects, but other laws contain relevant clauses. This dispersed legal approach, combined with deficiencies in the existing statute and limited legal frameworks around community participation, can cause problems.

EXPROPRIATION SHORTCOMINGS

Despite its clear shortcomings, expropriation remains prevalent in Turkish land readjustment projects. In many instances, the maximum contribution percentage is defined as 40 per cent, and is taken from each landowner without any compensation. If the contribution percentage is more than 40 per cent of the land readjustment area, the municipalities have to pay compensation. In practice, municipalities do not want to exceed the maximum contribution percentage as they often do not have the financial resources for compensation. The threat of expropriation is frequently used as a bargaining chip to force agreements with landowners.

Landowners are therefore offered the option of a house unit (or units) after the project is completed in return for the value of their land/property, or can have the land/property purchased by the municipality, TOKI (Housing Development Administration of Turkey), or the developer of the land/property. If an agreement cannot be reached, the municipality has the authority to expropriate. However, imputed value, not future use, determines compensation, and the resettlement costs are not included in the compensation. This means that expropriation can result in the unjust treatment of landowners and tenants as the projects end up catering for middle- and high-end income groups and do not provide social housing.

LIMITED SOCIAL HOUSING OPTIONS

Social housing can be provided by increasing the contribution percentage within the land readjustment process; by considering social housing as a functional area in a local physical plan; and by central government institutions entering land readjustment projects as a landowner to provide social housing (the Aydınlı case is an example of this).

However, social housing has not been considered an important outcome of land readjustment projects, and the contribution percentage taken from each landowner, for example, is not con-

sidered as something that goes towards social housing. Also, social housing is not defined in public service areas provided by expropriation. It has also suffered from a lack of funding.

The lack of social housing, combined with many urban renewal projects targeting high-income groups, means that original landowners who participate in projects cannot remain in the area as prices rise.

LAND DISTRIBUTION

Land distribution is the most problematic stage in the application of land readjustment in Turkey. The limited intervention into cadastral ownership status in readjustment, the removal of differences in the form of land in the distribution stage, the risk that landowners may lose their land, and the availability of subjective valuations in the distribution stage have all caused landowners to be opposed to land readjustment.

For example, when the area of the plot granted to an owner following the readjustment process is smaller than a normal urban plot, this can create numerous jointly-owned plots. If landowners do not reach agreement to resolve joint-ownership issues within six months, municipalities can file charges against owners, although this authority is not often exercised.

If legal action is started, the joint owner with stronger economic power may have the chance to purchase the entire urban plot – which potentially disadvantages poorer landowners. Further, other parties may have the opportunity to purchase this urban plot. This means some landowners risk losing their plots at the end of the process.

LAND ACQUISITION

Many municipalities also use the voluntary method in their land development process. In the implementation of the voluntary method, the contribution amount is not determined by a certain ratio, but by the requirements of the detailed local plans. Therefore, the contribution percentage of each plot to the lands allocated for public service areas varies. This causes loss of income for landowners and sometimes leads to injustices in the overall plan. However, several factors have promoted the voluntary method as an alternative to land readjustment – such as lower costs for municipalities, quick implementation, the greater effectiveness of landowners in the process, and the low rate of litigation.

PLANNING ISSUES

In general, many land readjustment projects are not linked with broader municipal plans. Many local governments do not have access to these plans and there are no legal sanctions against municipalities that do not prepare their implementation programmes – even though municipalities are required to prepare a five-year implementation programme within three months of the development plans going into effect.

As a result, there is often no link between the determination of the readjustment areas and the detailed local plans. There is also a lack of criteria in urban areas, as a whole, by which land and its size could be evaluated for the realization of land readjustment projects. A further complicating factor is that the plan decisions are usually based on the *de facto* situation, so public service areas are kept at a minimum. This type of land readjustment can produce controversial and unfair results, such as low quality of urban environment and the legalization of illegal subdivisions and buildings on plots that have no construction permits.

In the distribution stage of a land readjustment project, all landowners become joint owners in parcels that have been designated for public use facilities. However, while public service areas are provided by the contribution percentage, the respective public authority (local government units and central government units) is usually forced to undertake construction as part of their own internal budgets. Most lack the necessary finances and have not been able to capitalize on land-value gains, so the infrastructure construction often does not occur.

LIMITATION OF CADASTRAL RECORDS

Planning is complicated by limitations in the cadastral records. While figures show that cadastral coverage is high, there are problems related to different surveying methods and coordinate systems (Sarı and Demirel, 2007). Old measuring instruments have created many inaccurate boundary records and thus compound capacity to develop clear and concise plans.

LIMITED PUBLIC PARTICIPATION

Public participation is often severely lacking in Turkish land readjustment projects. There is no legal mandate for community engagement and no organization that can explain the project to landowners, describe how the alternatives are assessed or provide advice during or after the land readjustment process. There is also no process that supports the participation or engagement of vulnerable groups (low socio-economic, single parent households).

This has undermined the capacity of many land readjustment projects to facilitate urban equity in land and housing. While there are some examples of benefits to low-income communities in the case studies, it is clear that these benefits are sometimes ad-hoc or individual outcomes rather than an inherent part of the Turkish land readjustment approach.

LIMITED MUNICIPAL CAPACITY

The large number of small municipalities, the lack of technical personnel in such municipalities and the lack of financial resources all directly influence the preferences and functionality of municipalities and thus, how land readjustment is carried out. Many municipalities simply do not have the capacity, in terms of appropriately qualified personnel, to carry out land readjustment.

GOVERNANCE ARRANGEMENTS

The concentration of voters in land readjustment areas brings political concerns into decision-making. This is especially so in small cities because landowner prejudice and the high numbers of people living in a project area can affect election results (Çete, 2010; Yomralioglu et al., 1996). According to Turk's survey results (2004), the majority of municipalities (67.3 per cent) stated that landowners are prejudiced against land readjustment processes. Such prejudice against projects, and negative attitudes towards municipal administrations, can be important reasons for their failure (Turk, 2004b).

RECOMMENDATIONS

The report concludes with series of recommendations, many of which have relevance for other developing countries looking to improve their land readjustment processes. They include the following:

- The legal frameworks related to land readjustment should be collected under a basic land readjustment law. This law can include all different uses of land readjustment and clarify and simplify the legal process.

- Cash payments in lieu of land to compensate for readjustment contribution percentages – those that cannot be achieved through the conversion of joint ownerships into separate ownerships – should be included in Article 18 of Reconstruction Law No. 3194.

- The urban planning process and land readjustment projects should be more integrated. Implementation programmes and detailed local plans should go into effect simultaneously. Legal sanctions should be introduced in cases where municipalities do not have implementation programmes in conjunction with detailed local plans, in order to prevent a lack of budgeted resources halting infrastructure development.

- Infrastructure and construction costs should be factored into land readjustment projects in all cases. Furthermore, municipalities must adequately assess their capacity to undertake projects based on these costs and be prepared to explore what partnerships they might be able to foster in order to ensure the infrastructure is ultimately developed.

- To avoid displacing original landowners in urban renewal projects, which are mostly aimed at high-income groups, a percentage of social housing should be included in land readjustment plans and perhaps, legal frameworks, to ensure some capacity for a mixed population.

- Land readjustment projects should be implemented by large municipalities that have high population growth and change in urban areas. Small municipalities (populations under 50,000, the majority in Turkey) do not have the capacity to implement land readjustment.

- Both the number and the qualifications of technical personnel should be improved, particularly in small municipalities. Training should be provided at a national level regarding land readjustments to enhance the quality of technical personnel employed in municipalities.

- The precision of the data coming from the land register system, one of the most important inputs in land readjustments in Turkey, should be improved.

- Public participation should be included in land readjustment projects and land owners should be informed at different stages of projects. By including a broad range of stakeholders, the annulment of projects by the administrative courts and displacement of vulnerable groups can be reduced.

INTRODUCTION

This report analyzes the potential and challenges of land readjustment in Turkey, looking at the specific difficulties related to the implementation of projects and providing recommendations to improve implementation and outcomes.

The methodology is based on a desktop study, in-depth interviews with selected experts and case studies on different uses of land readjustment. The desk study includes the findings of previous studies related to land readjustment; in particular, two surveys related to the use of land readjustment by Turk in 2003 and 2008. Turk's questionnaire in 2003 surveyed 468 municipalities and 300 technical experts (surveying engineers and urban planners). The 2008 study surveyed 60 large municipalities.

There are interviews with ten selected experts on land readjustment. They give insights into the issues that this method raises and opinions on problems that should be addressed in changing the legislation on readjustment in Turkey.

The case studies demonstrate in detail the different uses of land readjustment and the practical issues that arise in its implementation. Four individual projects are described at length to illustrate the way land readjustment is used in different circumstances; these are intended to explain the mechanism in Turkey and the specific challenges inherent to varying land-development projects.

The report then delivers lessons learnt and recommendations, many of which are applicable to other developing countries.

01

01 LAND READJUSTMENT IN TURKEY

1.1 USING LAND READJUSTMENT IN NEW DEVELOPMENT AREAS

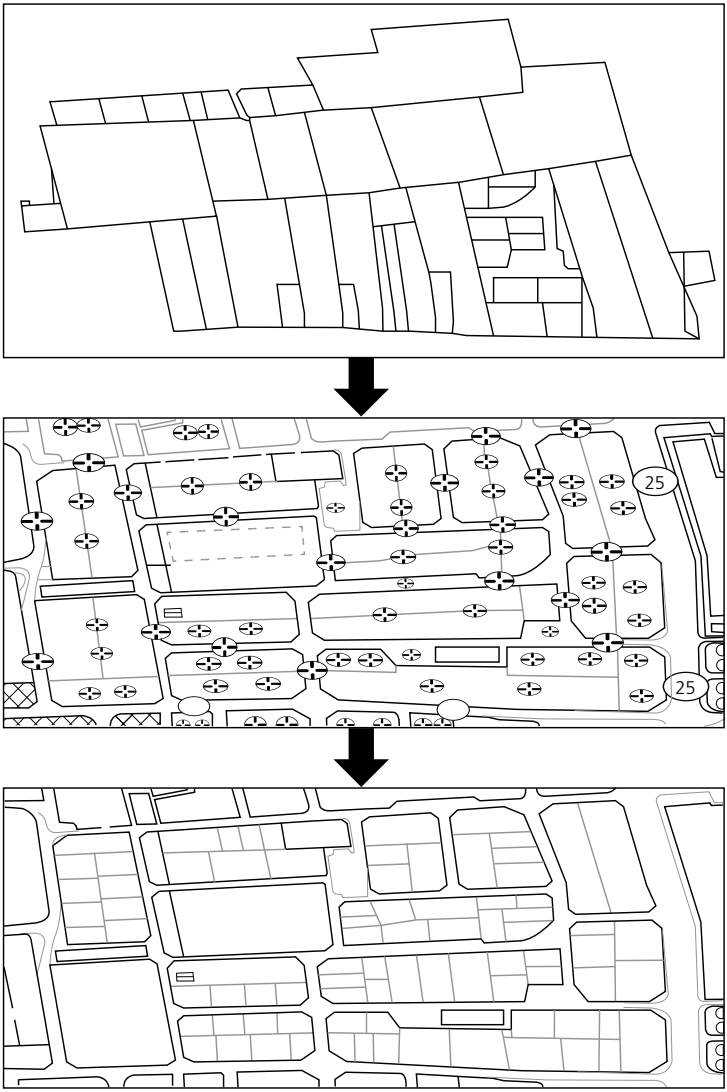
Although Turkey has a long tradition of land readjustment (Erdem and Meshur, 2009; Turk, 2005; 2007; 2008; Uzun, 2009; Akdeniz, 2001; Yomralıoğlu, 1996), the method has been used mainly in new development areas of cities (Yomralıoğlu, 1996; Turk, 2004) to convert agricultural or semi-urban land at the urban fringes (Figure 1).

There are two reasons for this. Firstly, contributions and benefits in land readjustment are determined in terms of land area and not land value. This makes land readjustment more successful in new and developing urban areas or relatively homogenous areas, rather than in completely or partially built-up areas (Larsson, 1997, p. 126). In other cases, criteria such as conversion into money or payment of the price difference must be taken into account (Turk, 2008).

Secondly, the provision of land for infrastructure and public service areas and construction on land are separated in Turkey's land readjustment processes. While land for on-site areas is provided by the contribution percentage within land readjustment projects, the construction on this land is not included; the respective public authority (local government units and central government units) is responsible for construction based on its own budget. Also, while land for off-site service areas is provided by expropriation, construction is still the responsibility of the authority.

Because of this separation, land readjustment projects can be done in a short period. However, when land readjustment projects are finished, the urban plots produced may not be defined as serviced urban plots because the construction of infrastructure has not been completed by the respective public authority. In general, the public authority cannot coordinate infrastructure construction and land readjustment projects. There can also be delays due to problems with financing.

FIGURE 1: **LAND READJUSTMENT; TRANSFORMATION OF CADASTRAL PARCELS INTO SERVICED URBAN PLOTS**



Main items of land readjustment process; cadastral plan, detailed local plan and parcel plan, Karatay (Konya) Municipality, 2009.

Source: Erdem and Meşhur (2009), p.721.

The aim of land readjustment in new developing areas is to implement detailed local plans, produce serviced urban plots in an appropriate size and shape, and meet the requirements of service areas and infrastructure for public use. Land readjustment in Turkey is successful at providing serviced urban plots of an appropriate size and shape in high volumes, particularly when compared to tools such as the voluntary method, expropriation, etc. In fast-growing and dynamic cities, this can provided the needed land. However, it could be more effective if the determination of land readjustment areas is considered in the whole of city.

1.2 LAND READJUSTMENT TO UPGRADE INFORMAL SETTLEMENTS

According to 2002 estimates, 27 per cent of Turkey's urban population lives in two types of informal settlements: squatter housing (gecekondu), and illegal subdivisions.

Squatter housing refers to the occupation of public or private land and construction without a permit. Illegal subdivisions are where settlers hold legal title deeds to shares (hisseli tapu) of a large parcel of land, when the land subdivision and construction are illegal according to Reconstruction Law No. 6785 of 1956 (Yönder, 1998; p.63). Although security of tenure in illegal subdivisions is higher than in squatter houses, illegal subdivisions involve a number of irregularities and are often the main reason for the construction of squatter houses and settlements. Subdivisions are not officially sanctioned and housing is usually constructed without an official permit (Keleş, 2002).

Squatter housing has been a significant problem since the 1940s and solutions have changed over time in parallel with global policies (Keavani, 2002). Until the 1960s, the approach was to demolish the houses and not to allow them to be rebuilt, providing opportunities for land production for low-income populations and ensuring the legalization of squatter housing. In the 1960s, the approach of upgrading, clearance and prevention within the framework of Squatter Law No. 775 was implemented. Upgrading involved the betterment of the residential standards of both the houses and the settlements. Clearance was the complete demolition of squatter houses surrounding historical sites and monuments. Prevention meant taking measures to bring the growth in squatting under control (Keleş, 2002, p.127).

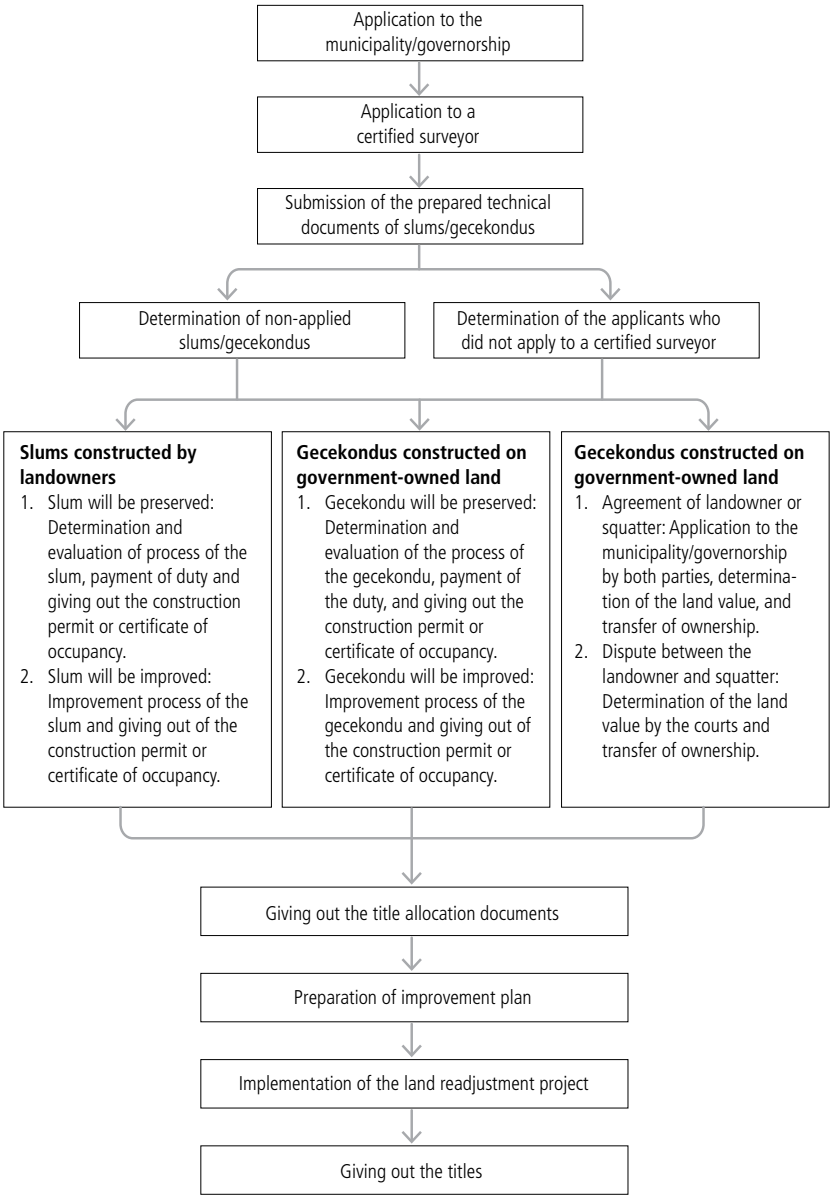
From the 1960s to the 1980s, informal development processes were commercialized as both squatter housing and illegal subdivisions spread rapidly (Yönder, 1998; Köktürk, 2003). Squatter Law No. 775 of 1966, amended in 1976, facilitated the upgrade of existing settlements. Legalization schemes were also instituted. These developments provided increased security of tenure to settlers and extended infrastructure and service delivery to these areas. As a result, new squatter areas were built for profit, rather than as shelter for those who could not afford formal housing (Erman, 1997; Bugra, 1998; Baharoglu, 1996; Baharoglu and Leitman, 1998; Erkip, 2000).

Private firms have taken over the securing of the plot, designing the project and constructing units with a view to profiting from the exchange value of the house (Keleş, 2002, p.126). In this process, illegal subdivisions have been the main reason for the construction of squatter houses. Entry costs are low due to the number of irregularities and being outside legal standards and procedures. Illegal subdivisions were eventually legalized and provided with infrastructure and other public services (Keleş, 2002). Similar to squatter housing, illegally subdivided lands became a subject of speculation and provided profits.

Under the economic reforms implemented by Turkey since the 1980s (such as a flexible exchange rate, a growth strategy based on exports, the reform and privatization of state-owned economic enterprises and the liberalization of imports, and promoting direct foreign investment), the squatter problem has been handled within a liberal framework. During this period, the approach to squatter housing areas has been a regularization policy with amnesty laws, as it brings illegal use into the formal economy and promotes the collection of local taxes, the removal of boundary conflicts, the recovery of costs in delivery services and the meeting of housing needs for low-income groups (Yönder, 1998; Erman, 2001). The most important legalization instrument was Law No. 2805 of 1983, followed by Law No. 2981 of 1984 and its amendments (Law No. 3290 and Law No. 3366). Amnesty Law No. 2981/3290/3366 was applied to both squatter houses and areas with illegal subdivisions. The legalization process is valid for both squatter houses and areas with illegal subdivision constructed before November 10, 1985. In both situations, the settler has to apply to the municipality or governorship within a legally defined period. Then, the settler has to make an application to a certified surveyor to prepare the required documents, which then have to be submitted to the relevant institutions to evaluate the application (Figure 2).

The determination and evaluation process for squatter houses constructed on government-owned land features three methods: preservation, improvement and clearance. With preservation, squatters have to pay the land value to the relevant institutions, after which the construction permit or certificate of occupancy is given to the squatter. With improvement, the construction permit or certificate of occupancy is given after the property is upgraded. With clearance, squatter houses are demolished when they are in or near historical sites and protected areas.

FIGURE 2: **THE LEGALIZATION PROCEDURE OF ILLEGAL SETTLEMENTS IN TURKEY**



Source: Uzun et al (2010), p.206.

The legalization of squatter houses constructed on private land needs the consent of the landowner and the squatter. An application is made to the municipality and the governorship[1] by both parties. After the land value is determined, the transfer of ownership is realized; in the event of a dispute, the value is determined by the courts. The legalization process in areas with illegal subdivisions is similar to that for squatter homes constructed on government-owned land, excepting the payment for land value.

After the determination of rights, title allocation documents (tapu tahsis) are given to squatters; these are not legally binding titles, but determine tenure for actual use (Köktürk, 2003). To transform the allocation into legally binding titles, development plans for improvement must be made. These plans include the unification of irregular, haphazardly formed parcels and their redesign to create new parcels of maximum 400m^2, to allow the construction of four-storey apartment houses (Dundar, 2001). The implementation of development plans for improvement is provided by a special land readjustment method. This is applied in accordance with Article 10-c of Amnesty Law No. 2981/3290 with a view to creating independent (without shares) parcels. The significant difference of land readjustment in accordance with Amnesty Law No. 2981/3290 and land readjustment in accordance with Law No. 3194 is that joint ownership can be converted to separate ownership during the distribution phase. Another difference is that adjustments in the distribution stage can be made in cash, not in the form of area.

A similar but limited characteristic has been introduced to Article 18 of Reconstruction Law No. 3194, with the addition of Article 1 of Law No. 2981/3290 in 1986. The additional article has provided the conversion of joint ownership into separate ownership in the land readjustment projects carried out under the framework of the Reconstruction Law, which is, however, only applicable in special situations (Turk, 2005).

The literature on legalization tends to emphasize the negative results more than the positive ones. Legalization does not prevent new illegal settlement forming (Köktürk, 2003; Güzey, 2009). Legalization policies have also tended to encourage haphazard urban sprawl on public and private land, without any provision for social or infrastructure services (Yönder, 1998).

1 Administrative units in Turkey are: central administration, local governments and other institutions and organizations. These groups of administration, as a part of a unitary state model structure, work on the principle of integral unity of the administrations. It is composed of central administration organizations in Ankara and governorships. Governorships are administered on the principle of decentralization. Turkey has four main types of local governments. First, there are municipal administrations whose jurisdiction is limited to urban areas with more than 5,000 inhabitants. Second, there are special provincial administrations whose areas of jurisdiction coincide with the provincial administrative divisions of the central government. Third, there are 16 metropolitan municipalities in Turkey. At the metropolitan areas, a two-tier metropolitan administration model is applied. Fourth, village administrations form the oldest and the most basic category of Turkish local governments.

Legalization does not provide for low-income groups to enter the formal markets, as the transformation from squatter housing to apartments causes a steep increase in land value in existing settlements. The financial surpluses generated by legalization have been distributed to land speculators, commercialized construction firms and their agents (Baslevent and Dayıoglu, 2005), not to low-income groups.

There are two positive points to mention. The first is that regeneration from squatter housing to apartment that has emerged and this renewal has been realized directly by landowners (who have title deed allocation certificates) or by contractors (builder-and-seller) at the single building scale without the direct intervention of the government. This creates an improvement in the private sector in dwelling production. The second is the partial removal of boundary conflicts. For example, converting shared ownership into single-person ownership can be done in areas with illegal subdivisions.

The aim of land readjustment for informal settlements is to legalize squatter housing, illegal subdivisions and buildings on the parcels that have not been constructed with permits. This is done to produce new serviced urban plots with a maximum size of 400 m^2, to supply public service areas, and to ease land ownership problems. With the use of land readjustment for informal settlements, squatter housing and illegal subdivisions and buildings on the plots were legitimized at the end of the project.

02

02 INSTRUMENTS AND POLICIES USED IN TURKEY'S LAND DEVELOPMENT PROCESS

2.1 EXPROPRIATION

Traditionally, expropriation has been thought of as one of the main instruments of land policy. It allows the state to acquire property against the will of its owner in order to fulfil some purpose of general interest (Azuela and Herrara, 2007).

Expropriation in Turkey was first defined in a bylaw in 1856. With the Public Expropriation Decree of 1925, the scope of expropriation widened and expropriations continued under various laws until 1983, when Expropriation Law No. 2942 pursuant to Article 46 of the 1982 Constitution came into force. This authorizes relevant administrations to intervene in privately owned properties without the consent of the owners.

Public administrations, public legal representatives or boards of directors decide on the public interest. There is no need to issue public interest decisions for services to be provided under approved detailed local plans and projects approved by related ministries; however, a decision is taken indicating that the expropriation has started. According to Law No. 2942, the definition of public interest is left to the executive branches. With the adoption of liberal economic policies, there have been important changes in the role of the state; this has led to a change in public perceptions and the definition of public interest has become more complex.

Compensation for expropriation must be determined. In the 1924 Constitution, the current price of land was taken as the basis for expropriation compensation, with the 1961 Constitution preserving this principle. The 1971 amendment to Article 38 of the Constitution introduced the provision that compensation shall not exceed the value that had been declared by landowners and accepted by authorities for the purpose of taxation. When the lands of those who had not declared the property value to the tax office were expropriated, compensations were based on the actual value. Values declared by landowners for tax purposes are generally low and, due to this, people who had declared the value were penalized (Akyol et al., 1992).

Since then, landowners have frequently complained that the value determined is not the actual value of the real estate and this has led to many court cases, including in the European Human Rights Tribunal. This has brought significant repercussions for Turkey, with resultant high pay-

ments made by the government (Arpa, 2001; Turk, 2005; 2007). Another problem is that expropriation transactions that could not be finalized for long periods due to insufficient funds.

To resolve these problems, some legal amendments were made in 2001, including the introduction of a purchasing procedure in the expropriation process. Another significant amendment is that the expropriation process may no longer be initiated before the relative funds have been budgeted and the expropriation value put aside in the central bank. This restriction prevents expropriations being suspended for a long time due to non-payment of compensation. Furthermore, those expropriation transactions that could not be finalized for a long time due to the cancellation of the Decision of Constitutional Court that came into effect on 29 June 2000, and items 1 and 3 of Article 13 of Reconstruction Law No. 3194, are prevented (Turk, 2004).

Expropriation is also used in the land readjustment process. One such example is if the contribution percentage within the land readjustment process is greater than the maximum allowable 40 per cent, the difference is expropriated by the municipality in order to reduce the contribution percentage to 40 per cent. In practice, municipalities do not want to exceed the maximum contribution percentage in land readjustment projects because this may create a budget deficit.

The second example is when the contribution percentage for public services, which is applied to all parcels in the project area to provide land for public services, is determined. In the distribution stage of the land readjustment project, all landowners become joint owners of the parcels designated for public use facilities, based on their cadastral plot ratios.

In Turkey, there are two reasons why local governments prefer not to use expropriation to acquire serviced plots in urban areas. The first is that local governments have inadequate funds to begin expropriation and provide serviced urban plots. The second reason is that the expropriation can cause delays and increased cost due to legal action by landowners.

However, after the introduction of laws No. 5393 and No. 5366 in 2005, the municipality has the right to make agreements with landowners in renewal areas during the land assembly; if an agreement cannot be reached, it has expropriation authority. Here, the law intends expropriation to be used as a tool to force agreement. This gives the municipalities flexibility, but public criticism has created doubts about this as a solution. For example, the value of current use, which is low in urban renewal projects, determines the compensation. Expropriation based on this level of compensation is considered to be an unjust treatment of landowners and tenants. The second problem is that the resettlement costs are not included in the compensation of the expropriation. The third problem is that using expropriation for private development and not for social housing production is controversial (Turk and Korthals, 2011).

2.2 THE VOLUNTARY METHOD

Another way to supply serviced urban plots is by the state entering into private agreements with landowners (or developers) on abandoned areas that he/she owns in order to supply the land required for public service in the detailed local plan. In the event that landowners (or developers) supply the land for public services, they can then create the urban plots and obtain the needed building permits. In some countries, the voluntary method is known as developer exactions and these can also be in the form of an in-kind provision of infrastructure or cash payments. One of the most common forms of developer exactions is a subdivision exaction. The developer is required by law to contribute, or donate, a certain percentage of land on the development site in exchange for the infrastructure facility (Tsui, 2008). The developer receives no other benefits for this land, but is simply allowed to proceed with otherwise allowable projects upon subdivision approval (Alterman and Kayden, 1988, p.28). This type of developer exaction is often used in developing countries.

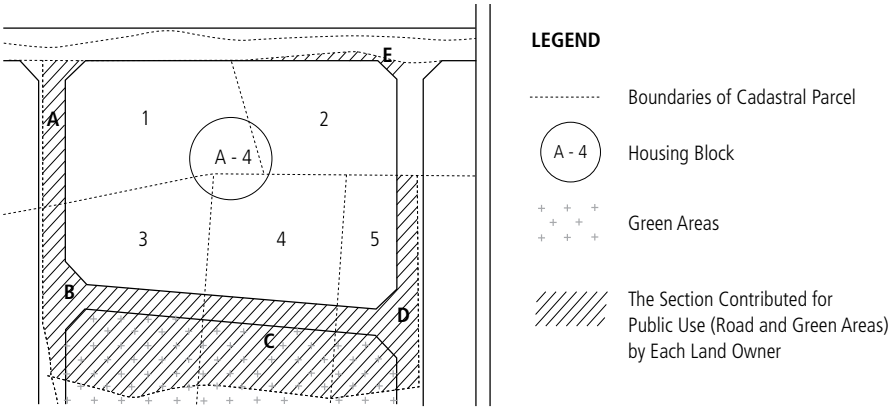
In Turkey, the voluntary method is a way to implement detailed local plans without any land readjustment. With this method, the areas of cadastral parcels allocated for public services in the detailed local plan are surrendered by landowners (or developers) to the state and designated for their intended purposes. The sections which correspond to areas allocated for public facilities such as parks and schools must be expropriated. The remaining areas include the formation of suitable urban plots as per the detailed local plan and the relevant regulations. The remaining areas not designated as suitable will wait for the transaction of the adjacent cadastral parcel to be completed or be designated as suitable for use after the parts are combined with this adjacent cadastral parcel. If the entire cadastral parcel is allocated for public service areas, it will await land readjustment or expropriation. With these transactions, serviced urban plots are created.

Figure 3 demonstrates detailed local plan decisions taken for five cadastral parcels. The land shown in the figure has been set aside for housing use in compliance with the detailed local plan. Development rights have been granted for four-storey housing blocks. Cadastral parcels are indicated with dashed lines in the figure. Based on the voluntary method, the cadastral parcel marked as No. 1 can only be used as a serviced urban plot if the section marked as "A" is contributed for public use. It can easily be seen that the cadastral parcel No. 2 is the most favourable of these five plots because it has almost no area that will be excluded for public use. To become a serviced urban plot, cadastral parcel No. 3 should contribute the section marked as "B", which corresponds to a road and green area for public use, and plot No. 4 must do likewise with the part marked as "C".

It is very difficult for cadastral plot No. 5 to become an urban plot because, after the removal of section "D" for public use, the remaining area is too small to be used as a serviced urban plot. Under these circumstances, the owner of plot No. 5 must convince the owner of plot No. 4 to engage in the voluntary method. If this is not realized or if the plot already contains a building,

plot No. 5 is forced to wait for land readjustment covering the particular area or for an expropriation decision by the municipality.

FIGURE 3: **THE VOLUNTARY METHOD**



Source: Turk, S.S. (2004a).

According to Articles 15 and 16 of Reconstruction Law No. 3194, urban plots that conform to the detailed local plan may be produced by the voluntary method. Article 21 of the General Building Regulation of the Reconstruction Law allows for the formation of urban plots based on decisions in the detailed local plan by voluntary method after the exclusion of land to be contributed for public use and in compliance with the requests of landowners. However, Article 19 and Article 24 of the same regulation state that land readjustment must be made prior to obtaining serviced urban plots by such processes; it overrules the possibility of serviced urban plot formation based merely on the outcome of subdivision-unification processes.

The differences in the wording of the articles indicate that there are contradictions between legal sources with respect to the implementation of the voluntary method. For this reason a clarification was made by the Ministry of Public Works and Housing in 2000 stating that the voluntary method is not in accord with Articles15 and 16 of the Reconstruction Law. According to the Minister, the process covered by Articles15 and 16 can only be used in those areas where serviced urban plots have been created by the land readjustment method (Turk, 2004a). Despite the legal limitations related to the voluntary method, it is often used in practice.

The voluntary method has significant benefits for both landowners and municipalities in providing serviced land. It reduces municipal costs compared to other methods and can be implemented quickly. Because the process is carried out in accordance with the demands of the local community, the rate of litigation is very low. Because of its implementation at the request of landowners, the transfer of service areas for public use is easily provided. Local governments do not have an active role in the implementation of the voluntary method (Turk and Turk, 2011).

The voluntary method has some disadvantages, however, including the following:

- In land readjustment, the contributed percentage is equal within the project area. However, the amount is not determined by a certain ratio but according to the detailed local plan. That is, the contribution percentage of each plot to the land allocated for general services is different. In the same area, the percentage of land contribution is 0.5 per cent for some owners, whereas for others it amounts to 70 per cent (See Figure 4).

- The cadastral parcels to which the voluntary method cannot be applied have to be obtained through land readjustment methods or expropriation. This means that some landowners get unearned income through detailed local plans without loss and some landowners can leave some parcels to public use without charge. This can lead to injustices in the overall plan.

- Because of its implementation at the request of landowners, the detailed local plan is not implemented piece by piece. For example, in Figure 5, plots No. 3 and No. 4 can use the voluntary method, but cadastral parcel No. 5 cannot. In this case, the public service areas that include parts B and C are to be provided by the voluntary method. However, part D is not provided because the landowner does not want to use the voluntary method. Thus, some parts of roads cannot be opened.

- The land allocated for infrastructure and service areas cannot be provided in a holistic way (Köktürk, 1997; Ersoy, 2000; Akdeniz 2001).

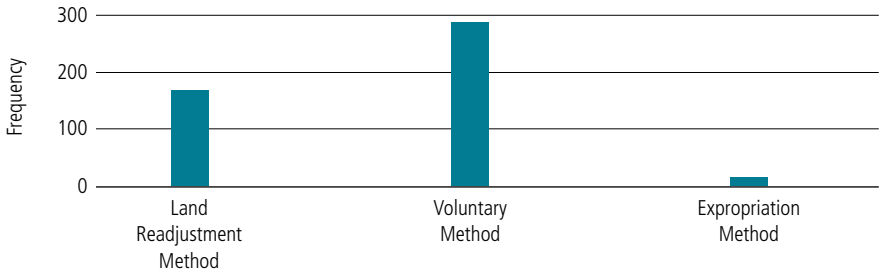
Nonetheless, the results of a survey by Turk (2003) indicate that municipalities use the voluntary method in producing urban plots in spite of the legal inconsistencies and limitations (particularly following the 2000 circular by the Ministry of Public Works). The survey results show that 85 per cent of the municipalities studied promote the voluntary method as a means for producing urban plots. In other words, the landowners meet all expenses to obtain urban plots that comply with detailed local plans by using subdivision, unification and contribution processes. The results of such processes are entered in the official Register of the Title Deeds upon the approval of the municipality and the owners are granted building permits. Thus, most municipalities (61.3 per cent) cite the voluntary method as their first choice (Turk, 2004a). See Table 1 and Figure 4 below.

TABLE 1: **THE PRIMARY PREFERENCES OF MUNICIPALITIES ON THE IMPLEMENTATION TOOLS**

	Frequency	Per cent	Valid Per cent	Cumulative Per cent
Land Readjustment Method	166	35.5	35.5	35.7
Voluntary Method	287	61.3	61.3	96.8
Expropriation Method	15	3.2	3.2	100.0
Total	468	100	100	

Source: Turk, S.S. (2003).

FIGURE 4: **THE PRIMARY PREFERENCES OF MUNICIPALITIES ON THE IMPLEMENTATION TOOLS**



Source: Turk and Unal, 2004b.

2.3 INCENTIVE-BASED LANDOWNER PROVISIONS

The scope of the developer exactions has changed over time. In the beginning, the scope was limited to infrastructure internal to the development. Later, the scope extended to the costs of public facilities provoked by the impact of the proposed development outside the development site. One type of developer exaction is incentive zoning. Incentive zoning allows local governments to relax specified restrictions in the ordinance in return for the provision by the developer of the desired urban infrastructure. These incentives are a type of non-financial compensation instrument, which fit into a broader movement towards pro-market instruments in spatial planning (Van der Veen et al., 2010).

The most common incentive is floor-area bonuses that increase the income for the developer (Alterman and Kayden, 1988; Alterman, 2007). For example, in São Paulo, Brazil, the "the mechanism of charges for additional buildings rights" was introduced with the Strategic Master Plan of São Paulo in 2002 and Land Use Law 13,885 in 2004. With this mechanism, minimum, basic and maximum floor area ratios are determined. The charges are imposed on the difference between the maximum floor area ratio and the basic floor area ration of plot. The revenues from the charges are deposited into the Urban Development Fund. A number of projects such as parks, pavements and street improvements, regularization of informal settlements, and restoration of cultural heritage buildings were implemented with the fund (Fróes and Rebelo, 2006; Sandroni, 2010).

In Turkey, although not very common, incentive-based landowner provisions can also be supplied with detailed local plans. Some of these include the incentives that provide a floor-area bonus to landowners (or developers) when the landowners (developers) cede over 40 per cent of the parcels determined for infrastructure and public service areas. Generally, landowners (or developers) do not want to cede over 40 per cent of the parcels for service and infrastructure areas, hence the need for this market-based incentive. If a land readjustment project was implemented by the municipality on a similar site, up to 40 per cent of the landowner or developer's land would be taken as the contribution percentage without any payment. If the contribution percentage within the land readjustment process is more than 40 per cent, the difference is expropriated by the municipality in order to reduce the contribution percentage to 40 per cent.

The arrangement means that the right of development in return for the remaining excess parcel was given to landowners. After this decision, the developer transfers the rest of the land to the public without charge and the development of service and technical infrastructure areas is provided by the municipality. However, this type of incentive is not yet explicitly grounded in legislation and is often in the grey area of Reconstruction Law No. 3194, because the rules and formulas are not uniform or clear.

2.4 SELF-FINANCING CAPACITY OF LAND READJUSTMENT IN TURKEY

2.4.1 LAND ASSEMBLY APPROACHES AND FINANCING

Fundamentally, land assembly in the land development process in Turkey is realized in two ways. The first is the intervention of the state by using land acquisition methods like expropriation or land readjustment. The second is for the state or private developers etc. to purchase it according to its suitability for some purpose. The purchase is carried out completely within the framework of private law principles and market mechanisms.

In Turkey, land readjustment is defined[2] in Article 18 of the Reconstruction Law and relevant regulation. It is applied, within the framework of the detailed local plans, to manage the readjustment and development of built or un-built areas, to produce serviced urban lands at forms and sizes complying with detailed local plans, and to provide land for infrastructure and public service areas (Turk, 2005; 2007). Although land readjustment can be applied in inner city areas, in practice the method is often used in new developing areas.

There are two important reasons for this. The first is that value is not taken as a basis in the land readjustment process. The fundamental principle in distribution is the allocation of urban plots to their landowners from their original locations and in the form of independent ownership, as far as possible (Turk, 2005). In the distribution of urban plots, if a separate plot cannot be granted, jointly owned plots are formed. This application may cause the formation of many jointly owned urban plots. When it is considered that the ownership structure is fragmented in inner city areas, administration of land readjustment that is based on area can lead to important problems. The second reason that land readjustment is used in new developing areas is that the construction process is not included in the land readjustment process. The construction process is realized after land readjustment depending on the landowners' consent.

When considering urban renewal areas, the existence and complexity of ownership problems make the use of the purchase difficult for a developer. In particular, several key parcel owners required for the land assembly in urban renewal areas may want a much higher price for their land from the developer than the prevailing market value. This can result in delays in projects and can increase the cost of urban renewal projects. Also, the municipalities do not use purchasing because of the budget deficiency in Turkey. As a result, neither expropriation nor purchase can solve the land assembly problem in inner city areas in Turkey.

A survey by Turk in 2008 involved nine metropolitan municipalities, twenty seven district municipalities under these metropolitan municipalities and seven large city municipalities. The results showed that most urban renewal projects are still in the early stages, and a majority was in the concept-development stage (Table 2). This situation relates closely to the legal structure of urban renewal. In Turkey, the municipalities' power to determine urban renewal areas was granted by Municipality Law No. 5393 of 2005, so it is natural that urban renewal projects are in the early stages. According to the survey's results, the three main existing planned functions, accounting for about two thirds of the sample, were multi-functional (such as housing, trade,

2 In the first paragraph of Article 18 of the Reconstruction Law, land readjustment is defined as: "Municipalities are entitled, without the consent of landowners or other rightful owners, to combine land within the borders of detailed local plan, have buildings constructed on them or not, with each other, with road surplus, areas owned by public enterprises or municipalities, to divide them again into buildings blocks or parcels, in compliance with the detailed local plan, distribute them to rightful owners according to the principles of single, shared (joint ownership) or condominium ownership and to realize registration operations ex officio. If the said places are outside municipal boundaries and adjacent areas, the aforementioned authority is exercised by the governorships." However, since Law No. 5302 came into force in 2005, land readjustment is performed by special provincial administration (a local government unit) outside municipalities and their adjacent areas. Since 2008, TOKI has also had authority to perform land readjustment projects in illegal housing areas, urban renewal areas and the areas where the ownership is belong to TOKI with Law No. 5793.

industry), areas generated within the framework of Amnesty Law No. 2981/3290, and squatter housing areas. The new designation of about two-thirds is either multi-functional (such as housing, trade and tourism), or both housing and trade. The housing areas with high densities, account for about a sixth of the sample (see Table 2) (Turk and Korthals Altes, 2011).

The survey also shows that renewal project areas have a fragmented structure. The number of land and property owners in 91 per cent of the cases is over 200; in 54 per cent of the cases over 500; and about a third over 1,000. Usually landowners live in the renewal project area, which means they want to stay after a renewal project. Most project areas are 5-10 hectare, 30-50 hectare or over 100 hectares (Table 1). There are over 500 housing units in 60 per cent of the plans, and more than 1,000 units in over 30 per cent. The number of existing housing units may make the urban renewal process more complex (Turk and Korthals Altes, 2011).

In the survey, methods to fulfil the renewal principles of the municipalities were examined. Of the municipalities, 30.2 per cent (13 municipalities) developed the project themselves; 18.6 per cent (8) implemented the urban renewal project with a contractual exchange of land for building rights; and 23.3 per cent (10) implemented the urban renewal project with an agreement between the municipality and landowners. Urban renewal projects were carried out within the framework of public-private partnership by 23.3 per cent (10) of the municipalities in the sample group. Also, 9.3 per cent (4) established a project-based real estate investment trust with the private sector; and 44.2 per cent (19) worked jointly with TOKI. Outside of Istanbul and in Anatolia, this method is frequently used. Fourteen per cent (6) have directly implemented urban renewal projects by the private sector. Again, 2.3 per cent (1) have implemented the projects by union or cooperative established by landowners.

As can be seen from an analysis of the results, different methods are used in urban renewal projects in Turkey and the joint project development method with TOKI is used the most. It is possible to make a contract between the municipality and the landowners, and to develop the project within the framework of public-private partnership. Another urban project development method is the implementation of the renewal project directly by the municipality. In this sense, urban renewal projects are usually developed either directly by municipalities or by different partnerships in Turkey (Turk and Korthals Altes, 2011).

In 74.4 per cent (32) of the municipalities in the survey, land acquisition is required for an urban renewal project. It was determined that the most important acquisition method is expropriation: 58.8 per cent (20) of the municipalities use this method. Other land acquisition methods used are exchange or barter for another property owned by the municipality (26.5 per cent (9)), limited right establishment in return for price (32.4 per cent (11)), and purchasing by a private developer (20.9 per cent (9) of the municipalities).

TABLE 2: **CHARACTERISTICS OF URBAN RENEWAL PROJECTS IN THE SURVEY OF MUNICIPALITIES**

	Urban renewal projects	
Items	Number	Percentage (%)
The stage of the renewal project		
Concept development	23	53.4
Decision making	11	25.6
Land/property assembly	1	2.3
Site clearance	3	7.0
Land preparation/development	-	-
Building process	4	9.3
Marketing	1	23
Existing function of the urban renewal projects		
High density housing area	3	7.0
Middle density housing area	4	9.3
Low density housing area	1	2.3
Squatter housing area	8	18.6
The area legalized with Law No. 2981/3290	10	23.3
Ccommercial area	3	7.0
Housing and commercial area	2	4.7
Industrial area	1	2.7
Multi-functional area (housing, commerce, tourism, industrial area)	11	25.6
The number of land/property owners		
0-5	-	-
5-20	1	2.3
20-50	3	7.0
50-100	-	-
100-200	-	-
200-500	16	37.2
500-1000	9	20.9
1000>	14	32.6
Type of land/property owners		
Land/property owners are inhabitants in the renewal area	34	79.1
Land/property owners are investors and they do not live in the renewal area	7	16.3
Both	2	16.3
The surface of the urban renewal project area		

	Urban renewal projects	
Items	Number	Percentage (%)
1< hectare	-	-
1-5 hectares	2	4.7
5-10 hectares	10	23.3
10-30 hectares	5	11.6
30-50 hectares	11	25.6
50-100 hectares	5	11.6
100> hectares	10	23.3

Note: N=43. Source: Turk and Korthals Altes, 2011.

2.4.2 HOW INFRASTRUCTURE AND THE SERVICING OF LAND ARE MANAGED

As mentioned before, in the land readjustment process the provision of land for infrastructure and public service areas, and construction on the land are separated. The public service areas taken by the contribution percentage are considered as primary infrastructure and service areas that directly serve the parcels and their close surroundings. The respective public authority (local government and central government units) is responsible for construction based on its own budget.

Public service areas are provided by expropriation, not by contribution percentage. These public areas serve not only the land readjustment project area, but the entire urban area. These areas are provided by expropriation within land readjustment projects. Also, the respective public body pays for the construction of these public service areas and infrastructure from their own budget.

When considering urban renewal areas in the survey conducted by Turk in 2008, the main principles for initiating the renewal projects were: basic approaches of the municipalities related to land assembly, cost recovery, and the roles of the parties in the project area. To determine whether land readjustment may be a genuine solution for the renewal of inner city areas in the Turkish context, the approaches of the existing urban renewal projects need to be known (Turk and Korthals Altes, 2011). The main principles in urban renewal projects in the survey are evaluated. A sample t-test has been applied to understand the ranking of these principles and the analysis determined the five most important principles respectively as the "inclusion of all parties in decision making (municipality, private developers, owners, tenants, inhabitants)" (t: 16.011, p: 0.000), "increasing the quality of service areas" (t: 15.948, p: 0.000), "consensus with landowners" (t: 15.659, p: 0.000), "relocation of displaced land/property owners after urban renewal project" (t: 13.786, p: 0.000) and "recovery of infrastructure and service area costs in the renewal project" (t: 11.088, p: 0.000). (Table 3).

TABLE 3: **MAIN PRINCIPLES IN THE URBAN RENEWAL PROJECTS ACCORDING TO MUNICIPALITIES**

Items	t-statistics	p-value	Mean	Standard deviation
Inclusion of all parties in decision making (municipality, private developers, owners, tenants, inhabitants)	16.011	0	4.12	1.28
The increase of quality of service areas	15.948	0	4.05	1.25
Consensus with land owners	15.659	0	3.65	1.11
Relocation of displaced land/property owners after urban renewal project	13.786	0	3.09	1.00
Recovery of infrastructure and service area costs in the renewal project	11.088	0	2.16	0.69
Sharing the financial benefits and costs generated by urban renewal among landowners, community and public	11.076	0	2.44	0.85
Consensus with owners and tenants or inhabitants	10.586	0	2.98	1.22
Consensus with private sector	9.308	0	2.56	1.10
Formation of multi-functional area	8.372	0	3.05	1.60
Provision of higher quality houses	7.558	0	2.74	1.51
The increase in quality of open spaces	7.305	0	2.50	1.42
Differentiation of housing users after the project	7.187	0	2.33	1.21
Continuation of social structure of the area after urban renewal project	6.870	0	2.05	1.00
Relocation of displaced renters after urban renewal project	6.762	0	1.95	0.92
Timely completion of the project	6.262	0	1.81	0.85
Building affordable housing	6.107	0	2.40	1.50
Being single in the decision making	4.032	0	1.84	1.36

(N: 43) Test Value: 1 Source: Turk and Korthals Altes (2010).

In renewal areas, the construction process of serviced and technical infrastructure areas is solved by protocols. Generally, developers meet on-site area requirements while off-site area requirements are met by municipalities. For instance, in the Sulukule renewal project, service and technical infrastructure costs were solved via protocol in 2007.

According to the terms of the protocol, costs of off-site areas are covered by the metropolitan municipality, while costs of on-site areas are covered by TOKI (Turk and Korthals Altes, 2010). However, after 2008, TOKI began to use Article 18 of Reconstruction Law No. 3194 in urban renewal areas with Law No. 5793. This provides for the acquisition of infrastructure and services areas such as roads, squares, car parks, green areas etc. by the contribution percentage in urban renewal areas. The respective public authority is responsible for construction based on

its own budget. In urban renewal areas, within large plots, there can be some private service areas and infrastructure. The cost of private service areas and infrastructure on the serviced urban plots are covered by landowners or developers.

However, in many cases the process described above does not work, as while muncipalities acquire the land needed for infrastructure and service areas, the frequent lack of implementation plans and budges mean that construction does not take place.

2.4.3 THE CAPACITY OF LAND READJUSTMENT TO PROVIDE SOCIAL HOUSING

In Turkey, the private sector is dominant in housing production. Land development by different landowners is dominant in the land development process. The "single plot-single building" approach has largely determined the development of urban areas and so housing development has occurred within the framework of this approach. Although the Turkish Constitution declares that "the state shall take the measures to meet the housing needs of low-income families in accordance with health requirements, this commitment has not been met […]. Hence households excluded from the authorized housing market have to take shelter in unauthorized stock" (Baharoğlu, 1996, p.55).

Urban planning and land development tools have not directly affected land provision for social housing, especially in the sense of a good balance of housing types and tenures. The aim of land readjustment in Turkey is to implement detailed local plans, to produce the serviced urban plots in appropriate size and shape, and to meet requirements for infrastructure and public service areas to be used by the public. There is no intention to provide land for social housing in the context of the model; the percentage within the project area contributed by each landowner does not include social housing, and social housing is not defined in the public service areas provided by expropriation within land readjustment. The percentage for the social housing in the total housing stock is not defined as a functional area within the local physical plan (as it is in Spain). However, mass housing areas can be defined in detailed local plans in Turkey. The acquisition of these areas is by expropriation. Such an expropriation is made by TOKI as a central government unit, not at a local level.

It can be said, however, that there are two indirect effects of land readjustment on land provision for social housing. The first is that land readjustment can produce urban plots at large scale compared to other land development tools. The cities of Aydın, Denizli and Samsun are examples where the production of urban plots and the needed housing supply were provided by land readjustment (Türel and Koç, 2008). The second effect is that land readjustment can serve self-help housing. When the small serviced urban plots are produced by land readjustment projects, the costs of buildings on these plots can be low if compared to large serviced urban plots. These plots can serve low-income groups. For example, this is partly provided by the implementation of Article 10-c of Law No. 2981/3290.

Although the sizes and prices of serviced urban plots produced by land readjustment can change according to location, use function and the balance between supply and demand, the serviced urban plots are intended much more for middle- and upper-income groups. Land prices may be affordable for low-income groups at places far from the centre of an urban area; however, open areas that need to be protected on the periphery of city are not open to development. Consequently, the production of serviced urban plots by land readjustment for low-income groups is limited. This, by and large, is due to governance problems. The process is driven by the powerful together with bureaucrats. The percentage of social housing in the total housing stock is not defined in the implementation of detailed local plans. Generally, social housing is only seen as a subject for a central government, not the local level. Also, there is no direct contribution to social housing in the context of land readjustment.

Here, it is important to question how the social housing capacity of land readjustment for low-income groups can be increased. There are three ways to remove the existing system's weakness.

The first is to define the social housing area in the detailed local plan and add a 10 per cent share for a social housing area into the contribution percentage of land readjustment projects. However, this means an increase in the contribution percentage. For landowners, the contribution percentage is already high in Turkey (Turk and Unal, 2004); therefore, an increase in the contribution percentage to more than 40 per cent could lessen landowners' support.

The second way is to define a social housing area in detailed local plans and make the distribution according to the value of land for social housing in land readjustment projects. With this option, a division between private-sector and social housing is needed. The price of social housing is lower than market housing, so a change in law to the value-based approach is needed in land readjustment projects to take into consideration the division.

The third choice is the inclusion of TOKI in land readjustment projects as a landowner. In 2008, TOKI was authorized to implement land readjustment in the renewal of slum areas, in areas where ownership belongs to it and mass housing areas (Law No. 5793). With this authority, TOKI can enter land readjustment projects as a landowner and can produce social housing.

03

03 ISSUES WITH LAND READJUSTMENT IN TURKEY

3.1 ISSUES WITH THE RENEWAL OF IRREGULAR AND INFORMAL SETTLEMENTS

The renewal of inner city areas has seen various approaches in Turkey: renewal on a single building scale by landowners and contractors (builder-and-seller) depending on development rights in detailed local plans; renewal depending on the results of amnesty laws enacted at the beginning of the 1980s; and renewal based on building blocks or area-scale urban renewal instead of single-building scale. The last one can be considered a land readjustment-based process in which there is a temporary transfer of ownership to a public-private partnership, to public authorities or to a cooperation of these parties, and a return transfer of ownership to the original owners to develop new functions based on private law.

Examples of this approach are the Portakal Cicegi Valley[3] and Dikmen Valley[4] urban renewal projects. These were realized with different formulas. For example, a company (Metropol Imar A.S.) undertook the Dikmen Valley project as a business enterprise of the municipality. With the Portakal Cicegi Valley project, Portas A.S. was established as a joint venture with the municipality, construction firms and landowners (Turan, 2007). In these two examples, public-private sector cooperation is an important element. However, there is some criticism of this type of renewal, such as resultant gentrification. For example, only eight of the 47 original families live in the Dikmen Valley project area; the other 39 families moved elsewhere (Uzun, 2005). Another criticism is that this type of project can be applied only in places where there is potential for high real estate value and not throughout the urban area or all slum areas (Güzey, 2009). Yet another criticism is that it is not possible for low-income groups to access housing after the project because it focuses on middle- or upper-income groups (Turk and Korthals Altes, 2010).

3 The Portakal Cicegi Valley is within the Ankara Metropolitan Area and is 11 hectares. The first stage of the Portakal Cicegi Valley project started in 1992 and finished in 1996. Before the project, half of the ownership was public, the other private, and its function in the detailed local plan was defined as green area. However, the area was not expropriated before the project because of a lack of budget and long timescales. After the renewal project, recreation area, housing areas and culture and trade centre area functions were developed in the area.

4 The Dikmen Valley is near the Portakal Cicegi Valley within the Ankara Metropolitan Area. The area size is 290 hectares. The first stage of Dikmen Valley project started in 1989 and was finished in 1994. There were squatter houses in the area before the projects. After the renewal project there were green areas, housing areas, culture and social facilities, and a trade centre area.

After 2005, municipalities (with Municipal Law No. 5393, Law No. 5366) and TOKI (with Law No. 4966, Law No. 5366) had the authority to realize urban renewal projects in both illegal housing areas and areas with existing urban renewal laws. This approach features the demolishing of irregular and informal settlements and the reconstruction of new residential units in the same area or in a different area. Generally, the project areas are located near the city centre, which provides the potential for the projects to achieve high property values.

Land assembly is important in these projects. The municipality (or TOKI) has the right to make an agreement with the landowners. Within the framework of the agreement, the landowners are offered two options. The first is to be given a housing unit or units after the project in return for the value of their land/property. If the value of the land/property is below the value of the new housing unit produced after the project, the difference must be paid by the landowner. Also, the values of new housing units take into consideration the construction costs. The second option is to have the land/property purchased by the municipality, TOKI or the developer of the land/property. If an agreement cannot be reached with these options, the municipality (or TOKI) has the authority to expropriate. However, future use is not considered in the determination of compensation. Additionally, the resettlement costs are not included in the compensation of the expropriation. The existing value of land or property is low in urban renewal areas, and thus expropriation can result in the unjust treatment of landowners and tenants.

Although approaches based on public-private partnerships provide both land assembly and cost recovery in the renewal of irregular and informal settlements, the protection of social capital or social mixing cannot be provided. After 2008, TOKI began to use Article 18 of Reconstruction Law No. 3194 in urban renewal areas with Law No. 5793. The aim of land readjustment in urban renewal is to produce new serviced urban plots which are suitable as a mass housing area, provide land assembly and the supply of public service areas, eliminate illegal subdivisions and squatter houses, and ensure the original landowners stay in the area.

The use of privately initiated (landowner association or cooperative) land readjustment in urban renewal can be considered a remedy in land assembly, recovery of service and infrastructure costs and the protection of social capital or social mixing in an integrating way. This tool may have more positive results than the current renewal approaches in Turkey (Turk and Kortals Altes, 2010b). According to a study (Turk and Korthals Altes, 2011), 86 per cent of municipalities polled considered land readjustment to be useful in their urban renewal projects.

Land readjustment may turn out to be appropriate in different ways in different places of Turkey. Renewal areas can differ from each other and the differentiation is closely related to the existing structure, distribution of ownership, percentage of tenants and landowners, status of illegality, etc. For example, in a renewal area, medium density and the existence of illegal housing units can be constraints. There are, however, advantages in cases where extra floor area and a surplus plot ratio are provided. Therefore, land readjustment requires flexible planning.

3.2 BROADER DIFFICULTIES WITH LAND READJUSTMENT

According to the experts on land readjustment interviewed for this report, there are many difficulties with land readjustment implementation in the Turkish context. Several experts emphasized municipalities' lack of capacity, specifically the number of technical staff (professional planners and surveyors) and management skills. Most municipalities cannot satisfactorily carry out the functions of performance and auditing proposed by the planning and land readjustment process introduced by Reconstruction Law No. 3194.

Several experts also noted deficiencies related to legislation. One of these is that there is no sanction when municipalities do not prepare the implementation programme, even though municipalities are required to prepare a five-year implementation programme within three months of the development plans going into effect. Another problem is a lack of rules to determine land readjustment areas in the city. According to one interviewee (Kalabalık), "the determination of land readjustment areas is left to the municipality, which decides which parcels are included in land readjustment projects." Also, the macro form (the development direction) of cities is not considered by the municipalities in the determination of project areas.

Another difficulty is the lack of a value-based approach. In the land readjustment process, the values of the cadastral parcels coming into the project and the values of serviced urban plots allocated after readjustment are not determined. According to one expert interviewed (Ulger), "Land-based land readjustment is problematic because the value of plots determined before and after the land readjustment are not taken into consideration. The value-based approach should be applied. Especially in built up areas, land-based approaches can be problematic because contribution percentage cannot be taken." Landowners are prejudiced against land readjustment, and they see the method as an intervention into their ownership rights (Çağlar).

There is also a political concern in the municipalities. This is especially so in small cities because landowner prejudice and the high numbers of people living in a project area can affect election results (Çete, 2010; Yomralioglu et al., 1996). Several experts agreed that municipalities prefer to use a voluntary approach rather than land readjustment; however, the voluntary method in urban areas can cause inequality as there are significant differences in the amount of land landowners need to contribute for public use.

Interviewees also raised concern over the difficulties that municipalities have in getting the financial resources they need to meet the project expenses and possible expropriation expenses.

3.2.1 LAND REGISTRATION

In Turkey, urban cadastral works started in the early 1930s, while cadastral works for rural land started in early the 1950s because of compliance with the codes and regulations of the period. It is useful to investigate the land registration system from two different perspectives, namely

quantity and quality. The cadastral work of 17,630 of the 17,746 districts were completed by 2011 in urban areas; 33,737 of 34,695 villages were completed by 2011 in rural areas—equivalent to 99 per cent in urban areas and 97 per cent in rural areas (www.e-tkbm.gov.tr). Quality is another matter: the cadastral work was done with a number of different surveying methods and coordinate systems (Sarı and Demirel, 2007), and cadastral details were surveyed using old measurement instruments. As a result, cadastral maps can be problematic because of inaccurate recording of boundaries. These mistakes arise when the cadastral measurement data is taken from the map sections and the data is taken by measurement of constant boundaries in land (Turk, 2005).

3.2.1.1 Land readjustment where there is no cadastre

In Turkey, there are few areas where there is no land cadastre. However, according to title 18 of Reconstruction Law No. 3194 dated 1985 and its regulations, land readjustment projects can be implemented in areas where there is no land cadastre. Pre-conditions for projects are the preparation of maps, the approval of existing maps, preparation of detailed local plans on the existing maps and the approval of a detailed local plan. In land readjustment projects, land area in the title and owned land need to be reasonably consistent with each other. There can be two approaches in areas where there is no land cadastre. The first involves land registration and the second does not require land registration. In areas where there is no cadastre, land registration cannot be provided accurately; in this case, the borders of properties are re-measured by taking into consideration boundary markers and ownerships during land readjustment projects. The areas are then re-calculated according to the new measurements.

In cases where the owned land and land area in the title are equal within margins of error, or if the owned land is smaller than that of land area in the title, the actual area of land is determined by the land office and is written in the land registration. In instances where the owned land is larger than land area in the title, a case needs to be opened to correct the area in the title in order to determine the actual area for land readjustment projects (Turk and Turk, 2006). According to the Turkish Civil Code, a landowner of unregistered land can apply to the courts and provide evidence that the land has been used by him or her for 20 years in order for the land to be registered in his or her name.

3.2.1.2 Land readjustment where there is a cadastre

In areas where there is a land cadastre, if there is a discrepancy between the boundaries appearing on map sections and the land, this directly affects land readjustment projects. There are three ways to correct these mistakes. The first is to use Clause 41 of Cadastre Law No. 3402, according to which the Cadastral Office rectifies existing mistakes and informs the landowner. The problem is resolved unless the landowner brings an action to abolish the rectification within one month. If this action is brought and the court revokes the amendment decision, it will be legally compulsory to comply with the cadastral map and to implement the land readjustment. All such cases show that it is incorrect to presume that the data in the land registration system are accurate when land readjustment is implemented. The second way to cor-

rect discrepancies is to use Clause 22 of the Cadastre Law, according to which the revision of cadastral maps can be made by the general manager of land registration. Also, Law No. 2859) allows cadastral maps to be revised at block level by the minister. However, these rules have not been put into practice.

3.2.2 PLANNING, POLITICAL AND ECONOMIC RESTRICTIONS

The land readjustment process in Turkey is closely related to local physical planning, since the purpose of the process is the implementation of detailed local plans. In accordance with Reconstruction Law No. 3194 and the regulation related to land readjustment, the municipalities are designated land readjustment project areas according to their needs. For this reason, the municipalities are required to prepare five-year implementation programmes within three months of the development plans going into effect. However, there are gaps in the law and regulations that interfere with the proper implementation of the plans. As a result, the land readjustment process has strayed from its main objectives.

While the municipalities may have their own technical staff to prepare their land readjustment projects directly, they may also contract to have the projects done by private surveyors' offices. The municipalities are required to cover all the project and expropriation expenses that may arise. However, where the readjustment areas are determined upon the request of the landowners – and provided they can be incorporated into the five-year implementation programme – the project expenses are covered by landowners.

To meet expenses, municipalities can access the Local Administrations Fund as per the "Regulations Related to Financial Support to the Local Physical Plans of Municipalities" enforced in 1984. However, the financial resources are often not sufficient. In a study carried out by Turk (2003), 69.9 per cent of the municipalities surveyed had financial problems with meeting the costs of the land readjustment processes. Similar results were found in a study carried out by Saglam (2002).

Therefore, some municipalities prefer voluntary methods. In applying the voluntary method, municipalities charge a fee for the subdivision and land assembly according to the Municipality Revenues Act No. 2464.

As mentioned above, the concentration of voters in land readjustment areas bring political concerns into decision-making, as mentioned by one expert (Isleyici), "Local governments pay attention to the political issues, not public interest and ownership rights." Prejudice against land readjustment amongst landowners means that municipalities can be reluctant to carry out projects for fear of their parties losing votes.

According to Turk's survey results (2004), the majority of municipalities (67.3 per cent) stated that landowners are prejudiced against land readjustment processes; and 79.9 per cent of these municipalities believed that landowners develop pessimistic attitudes about the legal

contribution of land for public use. According to 83 per cent of these municipalities, one reason for being prejudiced is landowners' belief that "they will be given property other than their cadastral plots following the land readjustment process". The survey showed that 70.3 per cent of landowners believe that after the readjustment, "the urban plot given would be a shared one". According to 61.6 per cent of municipalities, another reason for the opposition is landowners' belief that at the distribution stage, the equity (not equality) factor is not taken into consideration. According to the survey results, in 74.6 per cent of municipalities the reason landowners objected to land readjustments exercised by their individual municipalities is either "they are not pleased with the location of the urban plot obtained" or "the plot given is shared with others". Prejudice against projects, and negative attitudes towards municipal administrations, can be important reasons for their failure (Turk, 2004b).

3.2.3 SMALL MUNICIPALITIES

There are 3,225 municipalities in Turkey (Turkstat, 2011), of which 94 per cent have populations of less than 50,000 people. The Reconstruction Law assumes that the land readjustment method will be used in all municipalities; in practice, however, municipalities with a small population can rarely carry out land readjustment because they lack the budget, equipment and technical personnel (Keles, 1990, p.133; Koyuncu, 1990, p.119). Turk (2004) showed that municipalities prefer the land readjustment method more as their population grows (Table 4).

TABLE 4: **THE RELATION BETWEEN THE POPULATION GROUPS WHEREIN THE MUNICIPALITY IS INVOLVED AND LAND ACQUISITION METHOD PREFERENCES**

Items	t-statistics	p-value	Mean	Standard deviation
Inclusion of all parties in decision making (municipality, private developers, owners, tenants, inhabitants)	16.011	0	4.12	1.28
The increase of quality of service areas	15.948	0	4.05	1.25
Consensus with land owners	15.659	0	3.65	1.11
Relocation of displaced land/property owners after urban renewal project	13.786	0	3.09	1.00
Recovery of infrastructure and service area costs in the renewal project	11.088	0	2.16	0.69
Sharing the financial benefits and costs generated by urban renewal among landowners. community and public	11.076	0	2.44	0.85
Consensus with owners and tenants or inhabitants	10.586	0	2.98	1.22
Consensus with private sector	9.308	0	2.56	1.10
Formation of multi-functional area	8.372	0	3.05	1.60
Provision of higher quality houses	7.558	0	2.74	1.51

Items	t-statistics	p-value	Mean	Standard deviation
The increasing of quality of open spaces	7.305	0	2.50	1.42
Differentiation of housing users after the project	7.187	0	2.33	1.21
Continuation of social structure of the area after urban renewal project	6.870	0	2.05	1.00
Relocation of displaced renters after urban renewal project	6.762	0	1.95	0.92
Timely completion of the project	6.262	0	1.81	0.85
Building affordable housing	6.107	0	2.40	1.50
Being single in the decision making	4.032	0	1.84	1.36

Pearson Kikare Source: Turk, S.S. (2003; 2004a).

3.2.4 LIMITED TECHNICAL PERSONNEL

In order to carry out successful land readjustment projects, the provision of essential laws and incentives is not enough. The administration needs to be equipped with a sufficient number of technical personnel and manpower. The experts interviewed on this issue suggested that municipalities do not generally have enough capacity for land readjustment projects, specifically technical staff and people with management skills.

According to 1990 data, 24 per cent of municipalities did not have any technical personnel and 42.3 per cent have only one technical person (Yurtsever, 1990). According to Turk's findings (2003), 53 per cent of municipalities have less than two technical people. When comparing these figures, it can be seen that there is no major difference between 1990 and 2003 in the number of technical personnel in municipalities.

At the same time, the technical people in these municipalities may not have the necessary knowledge and skills to solve technical problems, to understand the laws and regulations in connection with planning. The problem can be addressed by building the capacity of technical personnel on planning and surveying.

3.2.5 LIMITED LAND VALUATION AND PRACTICE

In Turkey, no land market value criterion is used within the land readjustment process. The values of the cadastral parcels coming to the land readjustment project and the values of serviced urban plots allocated after the process are not determined. That is, the values of the cadastral parcels and the values of serviced urban plots are the same for each landowner (Yomralioğlu and Tüdes, 1996; Çete, 2010). The most important reason for not having a value criterion in Reconstruction Law No. 3194 is the question of how the land market values would be determined. This is because there is no integrity between the regulations over real estate values and their appraisal assessment (Köktürk, 1988). When reallocations in land readjustment projects are made, jointly owned plots may be the result. Removal of jointly owned plots after

adjustment may occur by way of either agreement among joint owners or a ruling. In cases where there is no agreement between the owners to remove the joint ownership, municipalities can apply to a court. While the related public department rarely brings about such lawsuits, in theory such a lawsuit poses significant risks for landowners.

3.3 DIFFICULTIES ARISING FROM EXISTING LEGISLATION

The prevalent view of the panel of experts interviewed for this report is that legal sources related to land readjustment are inadequate; indeed the majority of interviewees believe that the existing legal sources related to land readjustment should be revised and that more comprehensive regulations are needed. For example, some of the experts believe there should be specific regulations put in place that directly relate to problems and their solutions after the annulment of land readjustment projects.

According to one expert interviewed (Turk), "There is a lack of general legislation based on only land readjustment. Currently, the basic legal framework of land readjustment projects is regulated only with one title within Reconstruction Law No. 3194. This is not enough. A more comprehensive and new legal regulation related to land readjustment is needed."

3.3.1 DISPERSION OF LEGAL SOURCES RELATED TO LAND READJUSTMENT

In Turkey, the legal basis for land readjustment projects is Article 18 of Reconstruction Law No. 3194 and its regulation. Article 10-c of Amnesty Law No. 2981/3290 and Article 18 of Reconstruction Law No. 3194, with the addition of Article 1 of Law No. 2981/3290 in 1986, are used in upgrading existing illegal housing areas for regularization of land tenure. Law No. 5793 also gives authority to TOKI to use land readjustment in illegal housing areas, urban renewal areas and the areas where the ownership belongs to TOKI. These demonstrate that legal sources related to land readjustment are dispersed and the process is not defined as a whole. Article 18 of Reconstruction Law No. 3194 is based on area-based approach; however this approach cannot be applied in built-up areas. Moreover, public participation and the voluntary land readjustment project are not defined. There is no knowledge about the results when land readjustment projects are annulled by administrative courts, etc. In practice, administrative court decisions have tried to remove undefined points in legal sources (Turk and Turk, 2011).

3.3.2 DIFFICULTIES IN THE PREPARATION STAGE

In the preparation stage, the determination of project areas is important. The development of land readjustment projects by municipalities in urban areas based on self-evaluated needs is a consequence of Reconstruction Law No. 3194 and of the regulations related to land readjustment. Municipalities have to determine the readjustment areas and carry out projects in order to produce a sufficient number of serviced urban plots in accordance with their residential requirements.

A criterion related to the determination of land readjustment areas is the number of serviced urban plots ready for housing construction. According to this criterion, the number of those urban plots should not be below the number of issued construction permits in that area for the previous year. Also according to this criterion, the main aim is to produce land for housing in land readjustment projects. However, there is a lack of criteria on the determination of project areas in urban areas as a whole and the designation of their sizes. The Reconstruction Law and relevant regulation state that readjustment projects can be designed for areas equal to or larger than the size of a single residential block. Most municipalities tend to have projects of a size equal to a single building block. With this, the contribution percentage to be charged from landowners for public utilities will be limited to only this area and may turn out to be very low in comparison with the infrastructure needed for whole of the urban area. Since each owner contributes only one land contribution percentage, readjustments cannot be made to resolve differences in contribution percentages resulting from partial implementations for the whole of the urban area. This is unfair to landowners (Turk, 2005; Turk and Turk, 2011).

3.3.3 DIFFICULTIES RELATED TO THE CONTRIBUTION PERCENTAGES

The panel of experts generally think that the contribution of land readjustment projects to the supply of infrastructure and urban areas is not sufficient. Specifically, there is a problem related to the determination of projects. The contribution percentage in the whole urban area is not considered and the construction of infrastructure is not included in the process.

According to one interviewee (Ocakçı), when the "equity" principle of other methods is compared, land readjustment is more equitable than the others (voluntary method and expropriation). However, the "effectiveness" and "sustainability" principles cannot be provided. The main reason for this, according to several participants, is that each land readjustment project has a different contribution percentage depending on the readjustment size and the amount of land used for infrastructure and urban services areas within projects. Also few participants agree that a land-based approach is equitable. The prevalent view is that plan changes after projects prevent sustainability. With plan changes, the need for infrastructure and urban service areas increases, which therefore changes the sustainability aspirations of the original land readjustment project, particularly in relation to the financial and land availability components.

Sharing land readjustment project costs and benefits among landowners is based on their land contribution to the project, and this percentage is defined in the Reconstruction Law and relevant regulation. Each project has a different contribution percentage depending on the readjustment area size and the amount of land used for public services in the project. Within a project area, the same contribution percentage is applied to each landowner; however, getting this equity properly in an area-based project is not straightforward because each building block can have different characteristics affecting its value (Çete, 2010, p.377).

Also, planning decisions or development rights are not taken into consideration in the calculation of contribution percentages. In the planning process, not all previous cadastral parcels have the same density and development. Thus properties having similar economic values previously become differentiated in terms of location and development rights (Erdem and Meşhur, 2009). There are also some uncertain points in the process; for example, the condition related to closed roads in the land readjustment area is not defined in the Reconstruction Law, nor is it certain how the contribution percentage is received in completely built-up areas. Administrative court decisions have tried to remove these inconsistencies without much success. (Turk and Turk, 2011).

3.3.4 DIFFICULTIES RELATED TO THE DISTRIBUTION STAGE

The distribution stage is one of the most important parts of land readjustment projects. In Turkey, land value does not play a role in the calculation of percentages to be contributed by each landowner for public service areas. Although there have been private valuation firms since the 1990s, there is no public institutional structure related to valuation.

Unfortunately the area method often used in Turkey does not provide an equitable approach for landowners, because many other factors that affect a parcel value are ignored. The urban plots developed at the end of the process are distributed to landowners according to the size of their land at their involvement rate going into readjustment. In particular, too many choices in the distribution process and the possibility of many alternative proposals make distribution open to dispute.

The distribution stage has two problems. One is when the area of the plot granted to the owner following the process is smaller than a normal urban plot, according to detailed local plans. This is a problem frequently encountered because distribution is only in the form of land. In cases where individual urban plots cannot be assigned, jointly owned plots are formed out of necessity. This kind of implementation produces numerous jointly owned urban plots at the end of the land readjustment process and some landowners can end up sharing land with strangers. According to civil law, the owners of a property must come to an agreement among themselves for the joint ownership status to be changed. In cases of disagreement among owners, a legal solution is needed. According to Article 16 of the Reconstruction Law, a six-month period is allowed for the dissolution of joint ownership and municipalities have the authority to file charges against owners if an agreement is not reached in this time. However, municipalities often do not exercise this authority and usually the joint ownerships continue (Turk, 2005; 2007).

When legal proceedings are started in order to eliminate joint ownership (as per Article 16 of Reconstruction Law No. 3194), the joint owner with stronger economic power may have the chance to purchase the entire urban plot – which potentially disadvantages poorer landowners. Further, other people may have the opportunity to purchase this urban plot.

Some landowners thus face the risk of losing their plots at the end of the land readjustment process while some landowners win (Akdeniz, 2001; Turk, 2003). Also, problems may be experienced in the application of legally defined criteria. Not only the objective valuations but also the subjective valuations of assessors emerge during the application of these criteria.

The other problem is that intervention in land ownership is limited in land readjustment projects. Where parcels entering projects are in the form of joint ownership this structure cannot be automatically changed. Division of ownership and delivery of a separate plot to each independent joint owner is possible either through annulment of joint ownership by the court or through agreement between the owners. Nevertheless, as per Additional Clause 1 of Amnesty Law No. 2981/3290, an amendment has been introduced to the land readjustment clause of Reconstruction Law No. 3194 ensuring that joint ownership can be turned into individual ownerships. This is applicable to lands that are based on special subdivisions and sold in a shared way in areas with detailed local plans prior to the enforcement of Reconstruction Law No. 3194 (Turk, 2005). As already mentioned, before Reconstruction Law No. 3194, illegal subdivisions that included many joint owners within a large parcel were common. For instance, a parcel of 10 hectares could have 500 joint owners within the parcel. However, in land registration, only one parcel and one title and many joint owners are seen. As per the additional clause, joint ownership of these plots can be converted into separate ownership in the distribution stage.

The distribution stage is the most problematic stage in the application of land readjustment in Turkey. The limited intervention into cadastral ownership status in readjustment, the removal of differences in the form of land in the distribution stage, the risk that landowners may lose their land, and the availability of subjective valuations in the distribution stage have caused landowners to have prejudices against the land readjustment method. In urban areas where prejudices against readjustment projects are strong, there is a tendency towards the voluntary method (Turk, 2005). In a study carried out by Sağlam (2002), of 66 objections to land readjustment projects filed by landowners in 50 municipalities, 60 per cent were related to distribution. In another study (Atasoy, 1997), 44 appeals were referred to the High Court of Justice with regard to land readjustment between 1987-1995 were reviewed and in 60 per cent of these appeals the subjects were related to distribution and the contribution percentage.

3.3.5 LIMITED PUBLIC PARTICIPATION IN THE LAND READJUSTMENT PROCESS IN TURKEY

One of the important conditions in the efficient application of land readjustment projects is public participation, of which there is a great lack in Turkey. Some decisions can be made by administrative units or a contractor who conducts the application on behalf of the administration. For example, in general, the design of urban parcels within building blocks is not shown in detailed local plans. The design can be carried out by adopting minimum and maximum frontal and depth measurements within the detailed local plan decisions, and general building

regulations. The choice of dimensions between minimum and maximum measurements is left to the contractor, who conducts the application on behalf of the administration without the consent of the landowners in the land readjustment area (Turk and Turk, 2006). Besides, there is no organization to explain the project to the landowners, to describe how the alternatives are assessed or to seek advice from, during or after the land readjustment process. These make it inevitable that the administrative court is the only resort for unhappy landowners (Turk and Turk, 2006).

TABLE 5: **THE RELATION BETWEEN THE POPULATION GROUPS WHEREIN THE MUNICIPALITY IS INVOLVED AND LAND ACQUISITION METHOD PREFERENCES**

The city-size groups of municipalities		Their preferences in the land acquisition methods	Mean	Standard deviation
		Land readjustment	Voluntary method	Total
300,000>		17	11	28
	Row %	60.7	39.3	100
	Column %	9.9	3.7	6.0
	Total %	3.6	2.4	6.0
300,000-100,000		29	28	57
	Row %	50.9	49.1	100
	Column %	16.9	9.5	12.2
	Total %	6.2	6.0	12.2
100,000-50,000		21	30	51
	Row %	41.2	58.8	100
	Column %	12.2	10.1	10.9
	Total %	4.5	6.4	10.9
50,000-10,000		55	67	122

The city-size groups of municipalities		Their preferences in the land acquisition methods	Mean	Standard deviation
	Row %	45.1	54.9	100
	Column %	31.9	22.6	26.1
	Total %	11.8	14.3	26.1
10,000<		50	160	210
	Row %	23.8	76.2	100
	Column %	29.1	54.1	44.9
	Total %	10.7	34.2	44.9
Total		172	296	468
	Row %	35.5	64.5	100
	Column %	100	100	100
	Total %	35.5	64.5	100

Pearson Kikare Source: Turk, S.S. (2003; 2004a).

04

04 CASE STUDIES

This section describes a number of land readjustment case studies in Turkey, will bring to life much of the discussion in the previous section. In particular, the case studies provide insights into the practical issues that emerged in their implementation and the challenges faced by each one.

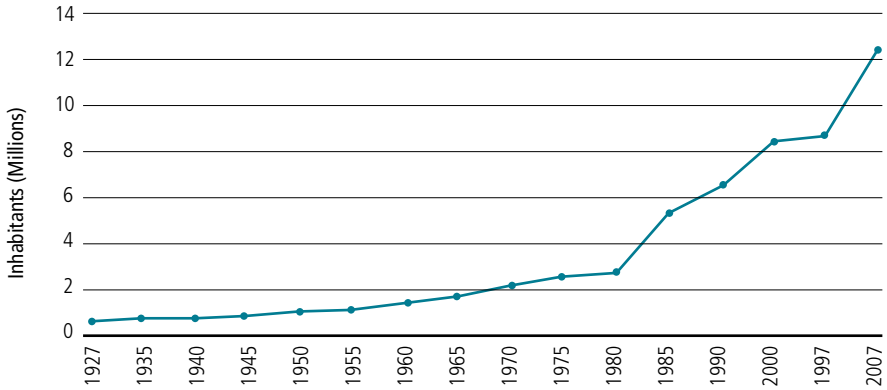
The case studies are based on three different uses of land readjustment: use in new development areas of the city; upgrading existing illegal housing areas for regularization of land tenure; and the capacity of land readjustment in the renewal of irregular and informal settlements.

4.1 METHODOLOGY

All the case study areas were in the metropolitan area of Istanbul, Turkey's main centre of industrial, financial, service and other economic activities (Berkoz and Turk, 2008; Ozus et al., 2011). The features of the area make it a good example to discuss the different uses of land readjustment.

The first feature is that there is dynamic growth in this area. The urban population of Istanbul increased from 2,909,455 in 1980 to 13,120,596 in 2010 (Figure 5). This growth has arisen from globalization trends as well as internal dynamics such as internal migration (Berkoz and Turk, 2008). Today, Istanbul is the most populated city in Turkey and contributes 21.5 per cent of Gross Domestic Product (IMM, 2007).

FIGURE 5: **POPULATION GROWTH IN ISTANBUL**



Source : http://www.ibb.gov.tr/sites/airqualistanbul/documents/eng/istanbul.

The second feature relates to the pattern of urban growth. The Istanbul metropolitan area has been continuously sprawling since 1975 (Terzi and Bölen, 2009); this has had significant consequences for the spatial pattern of the city, with illegal construction starting to invade catchment areas, forests and high-quality agricultural land. According to the findings of Terzi and Bölen (2006, p.1569), the sprawl was followed by compactness as settlements consolidated: neighbourhoods that once sprawled became compact due to increasing density and emerging sub-centres. New plan decisions in built-up areas and plan changes have influenced this process.

Thirdly, the city has high housing needs. In terms of quality and quantity of housing production, only 48 per cent of Istanbul's housing stock (3,136,931) has construction permits[5] . On the other hand, the number of the dwellings with occupancy permits[6] is 598,532. This means that only 39 out of 100 houses that have construction permits have occupancy permits. (GYODER 2006; Çanga et al., 2002). According to a study of Turkey's housing needs between 2000 and 2010, when building stocks with and without construction permits were considered, housing needs were 162,073. When only building stocks with construction permits were considered, housing needs were 1,780,583 (Çanga et al. 2002),

5 In Turkey, legal housing stock includes those with both construction permit and occupancy permit. A construction permit is issued by the municipality to start construction. Construction cannot start without this permit.

6 An occupancy permit is issued by the municipality for occupation when construction has finished according to Reconstruction Law and its regulation. In Turkey, many people live in houses with a contruction permit but not an occupancy permit.

The fourth feature is the growth in squatter housing. Housing areas feature a historical core and planned developed urban areas in surrounding illegal housing areas, which are expanding. In a study by the Istanbul Metropolitan Municipality (2006), housing areas were defined as regular and irregular. While regular housing refers to mass housing and other planned housing areas, irregular housing includes illegal built-up areas, areas of squatters, and improvement and development planned areas that were constituted under Amnesty Law No. 2981/3290. According to the report, the total housing area (78,115 ha) consists of 67.6 per cent regular and 32.4 per cent irregular housing areas (IMM, 2006).

The fifth feature is that Istanbul has seen sharp increases in land and housing prices in the legal market. The cost of serviced urban plots for housing production with construction permits is high and reaches 50 per cent of housing production with construction permits. Much lower prices apply in the illegal land market (Turk and Korthals Altes, 2010a). However, there is convergence because of informal trends in formal subdivisions, such as noncompliance with building codes (induced by amnesty laws), and formal trends in illegal settlements such as commercialization and densification (Pamuk, 1996). The illegal land supply is much more flexible to demand than legal land, which may be attributed to the hierarchical planning system in Turkey (Turk and Korthals Altes, 2010a).

Istanbul, as a large metropolitan area with a unique setting, historical characteristics and different structural and socio-economic features, has many different housing submarkets (Keskin, 2004; Ozus et al., 2007). This causes a wide range of prices; for example, at the top-end, residences in Istanbul are in the EUR 5,000 – EUR 7,000 /m^2 range. The high returns from residential property have caused increasing interest from both domestic and foreign investors (Turk and Korthals Altes, 2010a).

These features are similar to cities in other developing countries. Resolution of the problems in Turkey, and especially in Istanbul, is dependent on the provision of serviced urban plots and adequate dwellings in terms of quality and number, at reasonable prices, at the right time and in the right location within the legal land market. In this, land readjustment as a land development tool plays an important role. An examination of some land readjustment projects in Istanbul provides useful lessons for cities in developing countries.

The following considerations have informed the selection of case studies.

1. The need to capture the three different uses of land readjustment in Turkey and make the study as representative as possible of issues covered. Land readjustment in Turkey has been used for:
   - new development areas of the city;
   - upgrading existing illegal housing areas/for regularization of land tenure;
   - renewal (up-grading) of irregular and informal settlements.

2. Good practice: sharing experiences from land readjustment projects that have recently been completed* and are successful according to the application conditions.

3. Housing function.

4. Tenure: ownership structure that is fragmented and includes different landowners. Case areas include formal and informal tenure structure: formal structure includes de jure ownership; informal tenure structure includes without de jure ownership (occupiers) and partly de jure ownership (tapu-tahsis holder).**

5. Project size: projects that affect plots of more than 10 hectares of land.

* In the case areas, the project planning is completed and redevelopment is "partly or entirely" completed

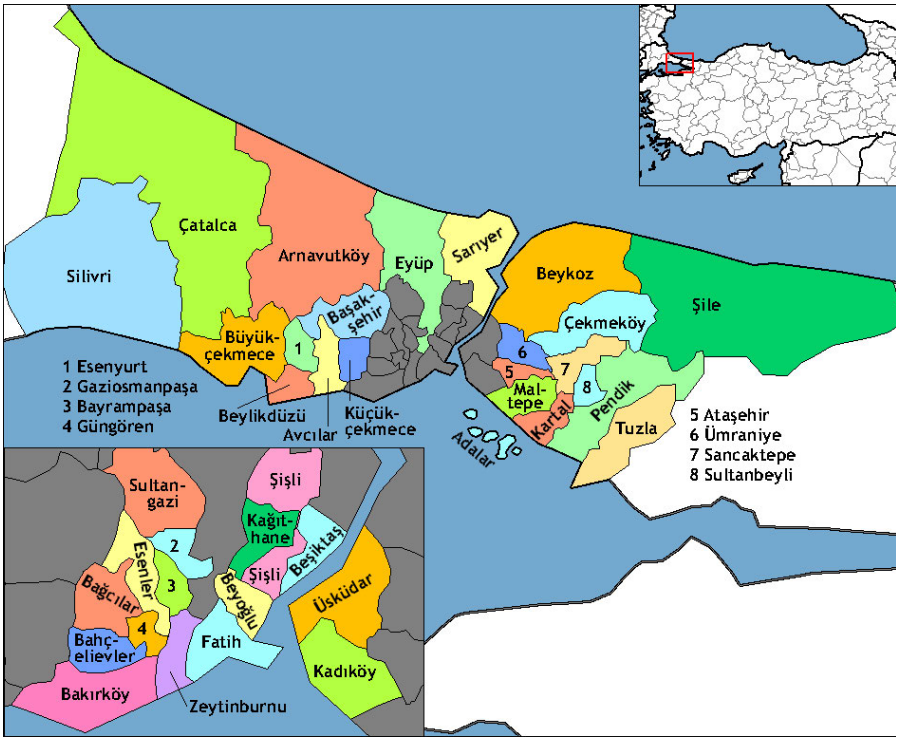
** According to Reconstruction Law, a tapu tahsis document guarantees a future *de jure* ownership, either of the property that they own and/or occupy or of another dwelling built elsewhere. That is, the documents confer to illegal owners a *de facto* usage right, thus providing them with some legality (Kuyucu and Unsal, 2010).

Data in the report were collected from different sources and related to planning matters; the land readjustment projects were provided by the municipalities, cadastral office and secondary sources. The data from municipalities and the cadastral office were re-compiled in line with the aim of the study.

According to Law No. 5447 of 2008 on the establishment of new districts within the jurisdiction of Metropolitan Municipality, eight new districts had been established in the Istanbul Metropolitan Area. With these new municipalities, the number of districts in Istanbul's Metropolitan Area is 39 7. Istanbul is a city with linear characteristics. Two transport axes, namely the TEM (E80) and E-5 (D100) highways, have important roles in shaping the urban structure.

7 These are; Avcılar, Büyükçekmece, Çatalca, Esenler, Eyüp, Fatih, Gaziosmanpaşa, Kadıköy, Kartal, Küçükçekmece, Silivri, Ümraniye, Üsküdar, Adalar, Bağcılar, Bahçelievler, Bakırköy, Bayrampaşa, Beşiktaş, Beykoz, Beyoğlu, Güngören, Kağıthane, Maltepe, Pendik, Sarıyer, Sultanbeyli, Şile, Şişli, Tuzla, Zeytinburnu, Arnavutköy, Ataşehir, Başakşehir, Beylikdüzü, Çekmeköy, Esenyurt, Sancaktepe and Sultangazi (Figure 6).

FIGURE 6: **BORDERS OF THE ISTANBUL METROPOLITAN AREA**



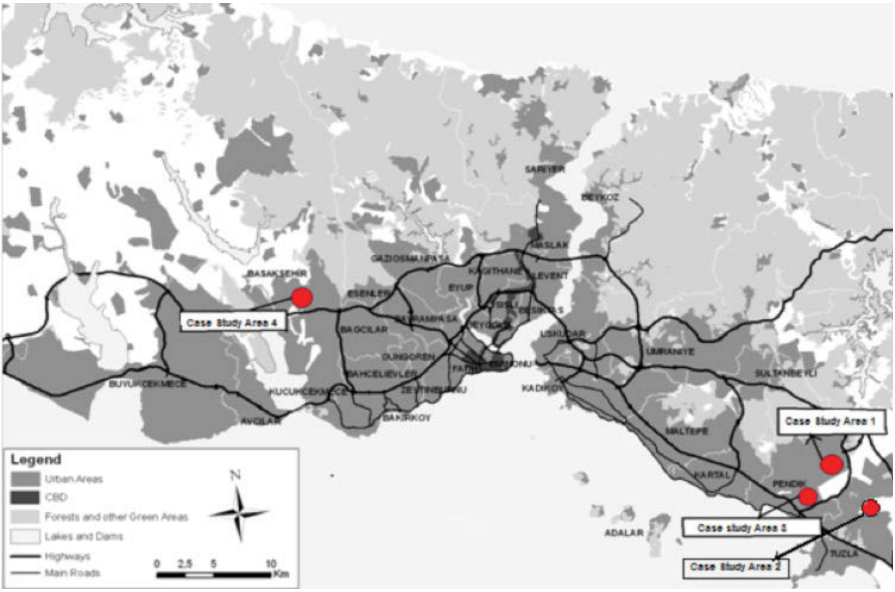
Source : Wikipedia Commons: http://commons.wikimedia.org/wiki/File:Istanbul_districts.

As the city grows, E-5 (D100) has remained in the city centre and become an intra-city road in terms of usage. TEM (E80) continues to be used as a highway. The TEM-E5 link roads, where these two axes intersect, are economically fast growing areas and expected to grow even more.

4.1.2. THE SELECTION OF CASE STUDY AREAS

In accordance with the defined criteria, four case study areas were selected in three different districts: Pendik, Tuzla and Basaksehir in the Metropolitan Area of Istanbul (Figure 7).

FIGURE 7: **LOCATION OF CASE AREAS IN ISTANBUL'S METROPOLITAN AREA**



Source: S.Turk, 2011.

Two case study areas in the Pendik district of Istanbul on the Asian side between Kartal and Tuzla, on the Marmara Sea. The area of Pendik is 180 km^2 and the population density is 2,888 people/km^2. Pendik is 39 kilometres from the centre of Istanbul and 72 kms from Kocaeli, the closest city centre after Istanbul. Pendik consists of 5 villages and 30 quarters.

The district had rural characteristics until the 1960s, when industrialization rapidly transformed it into a shantytown of workers from nearby factories. After the 1980s, Pendik developed further and expanded along the E-5 (D100) highway. It remained one of most important industrial areas of the Asian side of Istanbul until the mid-1990s, and some infrastructure investments related to transport made the district attractive as a suburban residential district thereafter. In particular, Pendik has been an attractive area because of its proximity to Sabiha Gökcen Airport and large transformation projects that were launched by Istanbul Metropolitan Municipality.[8] Pendik district has been a potential development area in Istanbul's master plan, making it a prime site for top-end housing projects.

8 One of the most important projects is the Kartal Coastal Line Transformation Project designed by Zaha Hadid to become the second major central business district in Istanbul.

The district had 609,535 inhabitants in 2011, with a population growth rate of 57 per cent between 2000 and 2011 (Figure 8, Table 6). The growth rate of Pendik is two times that of Istanbul; when compared with similar municipalities in Turkey it is 3.5 times higher. It is expected that the population will increase to one million by 2020.

FIGURE 8: **THE LOCATION OF PENDIK DISTRICT**

Source: http://tr.wikipedia.org/wiki/Pendik#mediaviewer/File:Istanbul_location_Pendik.

TABLE 6: **POPULATION GROWTH IN PENDIK**

Year	1970	1975	1980	1985	1990	1997	2000	2007	2010	2011
Pop. of Pendik	27,494	38,384	48,219	150,850	289,380	339,759	388,940	520,486	585,196	609,535

The second case study area is in the Tuzla District, near the Marmara Sea within the Metropolitan Area of Istanbul. It borders Gebze in the east, the TEM highway in the north and the Marmara Sea in the south (Figure 9). As with Pendik, Tuzla had rural characteristics and was a summer resort until the 1960s. It developed into one of the most industrial areas in the Asian side of Istanbul. At the beginning of 1980s, with the establishment of the largest shipyard in Turkey and some organized industrial zones, its population increased. In the 2000s, large investment projects like the Formula 1 race track and private university campuses made the district more attractive. Tuzla district has also been seen as a potential development area in Istanbul's master plan.

Tuzla District had 185,819 inhabitants in 2011, with a population growth of 44 per cent between 2000 and 2011 (Table 7). Tuzla, with its 125 km^2 surface area, has a 13 km costal line adjacent to the Marmara Sea. Its population density is 1,334 people /km^2, and it consists of 10 quarters.

FIGURE 9: **THE LOCATION OF TUZLA DISTRICT**

Source: http://tr.wikipedia.org/wiki/Tuzla,_%C4%B0stanbul#mediaviewer/File:Istanbul_location_Tuzla.

TABLE 7: **POPULATION GROWTH IN TUZLA**

Year	1970	1975	1980	1985	1990	1997	2000	2007	2010	2011
Pop. of Tuzla	27,494	38,384	72,219	91,850	125,239	128,456	128,658	165,239	181,658	185,819

The third case study area is in the Başakşehir District, one of the new districts established according to Law No. 5447 of 2008 within the Istanbul Metropolitan Area. It borders with Arnavutköy in the north and northwest, with Sultangazi in the north east, with Avcılar, Küçükçekmece and Bağcılar in the south, with Esenler in the east and with Esenyurt in the west and south-west. Başakşehir District's area is 10,434 hectares. According to the 2010 census, its population was 248,467 (Table 8). Başakşehir is one of the new developing areas on the European Side of Istanbul and its main feature is many mass housing projects (Figure 10). The study case area was located on the border of Küçükçekmece Municipality before 2008, and so the renewal project was started by this municipality.

FIGURE 10: **THE LOCATION OF BAŞAKŞEHIR DISTRICT.**

Source: http://tr.wikipedia.org/wiki/Ba%C5%9Fak%C5%9Fehir.

TABLE 8: **THE POPULATION OF BAŞAKŞEHIR AFTER ITS ESTABLISHMENT**

Year	2008	2011
Population of Başakşehir	193,750	248,467

4.2 CASE STUDY 1: ŞEYHLI PROJECT, PENDIK - A NEW DEVELOPMENT AREA

4.2.1 THE LOCATION OF THE PROJECT AREA AND ITS CHARACTERISTICS

The project area is in Ankara Street between TEM (D-80) and E-5 (D100). Sahiba Gökçen Airport is in the south of the project area. Transport to the project is provided by the access roads between Tem (D-80) and E-5 (D100) and accessibility to the project area is easy. The area was a peripheral settlement before the 1980s and Şeyhli was a suitable settlement for migrants because of the availability of affordable land. This was because of illegal subdivisions and its proximity to industrial areas in the region. As a result of the expansion of the city and its transformation since the 1980s, especially the construction of Sabiha Gökçen Airport, this area has become a built-up area located in a real estate zone that has been attracting major investments, especially for top-end housing projects (Figure 11 and 12).

Some infrastructure and service areas in the project area were provided by previous partial implementations (voluntary method, expropriation, partial land readjustment projects, etc.). However, many of them were not in the project area. While some cadastral parcels had become serviced urban plots, others had not. There were also boundary conflicts between some parcels in the area.

FIGURE 11: **THE ŞEYHLI PROJECT AREA**

FIGURE 12: **THE ŞEYHLI PROJECT AREA**

Source : Figure 11 and 12: S. Turk, 2011 Istanbul Metropolitan Municipality (IMM) satellite photo is used).

4.2.1.2 Detailed local plan decisions related to the project area

The land readjustment project is based on the detailed local plan that was approved in March 2007 by the Pendik Municipality. The plan is "detailed local plan No. 4" and it has been implemented in stages with the land readjustment project area identification being one of the stages. The basic function area in the plan was housing. In addition to housing areas, commercial and infrastructure and service areas were brought in. The parcel sizes in the plan were small because their design takes into consideration fragmented ownership. It was assumed that the land would be developed by different landowners. Also, the density decisions of the plan were according to existing structures, and the proximity to the airport. The granting of development rights also took into consideration the size of serviced urban plots. In serviced urban plots up to 300 m^2, the floor area ratio was 1:14, and the maximum height was 15.50 m. The floor area ratio of plots between 300 m^2 and 900 m^2 was 1:40, the maximum height was 18.50 m. In serviced urban plots over 1,000 m^2, the floor area ratio was 1:50, and the maximum height was 24.50 m. The detailed local plan is in Figure 13.

FIGURE 13: **DETAILED LOCAL PLAN THAT INCLUDES THE ŞEYHLI PROJECT AREA**

Source: Pendik Municipality, 2011.

4.2.1.3 Project area before the land readjustment project

In the project area before land readjustment, cadastral parcels had irregular forms. There was a fragmented ownership structure in the area. The tenure structure in the area was *de jure* ownership despite its slum-like characteristics. There were jointly owned parcels in the area because some parcels were constituted by illegal subdivision before 1985 (Figure 14).

FIGURE 14: **CADASTRAL PARCELS BEFORE LAND READJUSTMENT**

Source: Pendik Municipality, January 2011.

Before land readjustment, there were 341 cadastral parcels in the project area with an average size of 1,545.27 m^2. Table 9 shows that the standard deviation in both the size of cadastral parcels and number of owners per plot was quite high, which means there were significant differences in size of cadastral parcels. Additionally, this shows that the ownership structure was fragmented. Cadastral parcels included both jointly owned and separate parcels. Because some parcels were constituted with illegal subdivisions before 1985, there were jointly owned parcels in the area.

TABLE 9: **THE STRUCTURE OF OWNERSHIP BEFORE LAND READJUSTMENT**

Before Land Readjustment - Number of cadastral parcels: 341							
Cadastral parcel size (m2)				No. of owners per cadastral parcel			
Average	S.D	Maximum	Minimum	Average	S.D	Maximum	Minimum
1,545.27	2,395.99	17,176	0.42	6.25	13.49	145	1

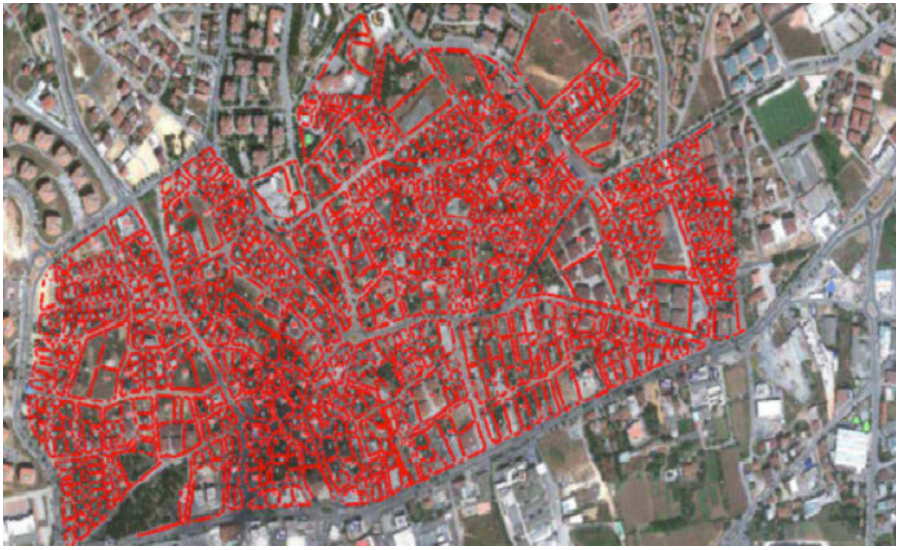
Source: Pendik Municipality, January 2011.

4.2.1.4 Project area after the land readjustment project

The aim of the land readjustment project was to produce serviced urban plots with as many as possible in separate ownership; to supply public service areas such as roads and parks available for public use; to convert cadastral parcels into serviced urban plots in regular forms and sizes; and to ease land ownership problems. The land readjustment area was determined by Pendik municipal committee without landowner consent. Then, the project was tendered by the Pendik Municipality in August 2008 and undertaken by a private firm. The Şeyhli Project started in December 2008 with Pendik Municipal Committee decision No. 1265 and was completed in March 2009. Inhabitants in the project area were not disturbed during the project because the land readjustment project took into consideration *de facto* situation and the construction process was not included.

After land readjustment, there were 887 serviced urban plots (Figure 15). The project area was 537,273.60 m^2. In the project, the contribution percentage was not taken from some parcels because of the previous partial implementations. The total area taken by the contribution percentage was 467,617.05 m^2. With the contribution percentage, public service areas like roads, green areas, elementary and secondary education area and religious building areas were provided (Table 10). The expropriation to supply public service areas was negligible (Table 10 and Table 11).

FIGURE 15: **SERVICED URBAN PLOTS AFTER LAND READJUSTMENT**



Source: Pendik Municipality, January 2011.

TABLE 10: **PROJECT AREA AFTER LAND READJUSTMENT**

CATEGORY	AFTER LAND READJUSTMENT	
	AREA (m2)	PERCENTAGE (%)
Public service areas supplied by contribution percentage	137,355.31	29.3
Roads	75,463.97	16
Squares	-	
Green areas	33,894.23	7.2
Car parks	-	
Children's playgrounds	-	
Elementary and secondary education areas	23,744.8	5.1
Police stations	-	
Religious buildings	4,252.31	1
Public service areas supplied by expropriation	243	0.0005
Health service areas	-	
Other public service areas	243	0.0005

Source: Pendik Municipality, January 2011.

TABLE 11: **SUMMARY OF THE LAND READJUSTMENT PROJECT**

Total of cadastral parcel size (m2)	Total of serviced urban plots (m2)	Public service areas		Contribution percentage (%)	Percentage of public service areas supplied by expropriation (%)
		Total of public service areas supplied by Contribution Percentage (m^2)	Total of public Service Areas supplied by expropriation (m^2)		
537,273.60* 467,617.05 (the area that is taken contribution percentage)	399,918.29	137,355.31	243	29	0.5

Source: Pendik Municipality, January 2011.

* Size of project area (537,273.60 m^2) - total serviced urban plots (399,918.29 m^2) = total public service areas (137,355.31m^2) Total public service area (137,355.31 m^2) / total area that is taken contribution percentage (467,717.05 m^2) = contribution percentage (29 per cent)

Note: The contribution percentage was taken from some cadastral parcels previously. Therefore, these cadastral parcels are excluded from the total.

The average size of the serviced urban plots was 558.43 m^2. The minimum parcel size was 113.09 m^2; the maximum parcel size was 6,118.74 m^2. The average number of owners per plot was 3.36. The maximum number of owners per plot was 145. Before land readjustment, the average size of the cadastral parcel was 1,545.27 m^2; after readjustment the average size of services urban plots decreased to 558.43m^2. Before land readjustment, the average number of owners per plot was 6.25; the value decreased to 3.36 afterward. This means that the ownership structure with joint ownership improved (Table 12). In the project area, Article 18 of Reconstruction Law No. 3194, with the addition of Article 1 of Amnesty Law No. 2981/3290 in 1986, was implemented. This article provided the conversion of joint ownership into separate (single-person) ownership in the land readjustment projects carried out under the framework of the Reconstruction Law. According to the results of the project, the conversion of joint ownership into separate (single-person) ownership partly succeeded.

One way to see whether a rent gap is created with land readjustment would be to look at the difference before and after the project. However, as stated before, no land market value criterion was used in the process in Turkey. That is, the values of the cadastral parcels and the values of serviced urban plots were the same for each landowner. However, an official land value compiled by municipality for taxation purposes could be used. This value has not been a part of land readjustment implementation practice. Also, this value does not reflect the market value and can be too rough for estimation. However, it can be useful to see the change in this

value before and after land readjustment for taxation purposes. In 2006, the average value was TRY 113.96 per m^2; in 2010, the value was TRY 220.31 per m^2. This means that the project led to a considerable increase in land value, which was much higher than changing municipal land price rates.

TABLE 12: **THE STRUCTURE OF OWNERSHIP AFTER LAND READJUSTMENT**

After Land Readjustment - Number of serviced urban plots: 887							
Plot size (m2)				No. of owners per plot			
Average	S.D	Maximum	Minimum	Average	S.D	Maximum	Minimum
558.43	1,126.94	6,118.74	113.09	3.3653	7.96	145	1

Source: Source: compiled from information from Pendik Municipality in January, 2011.

The aims of the project were largely achieved. As can be seen in the case review, 341 cadastral plots became 887 serviced urban plots after the project, which means an increase in the number of residences. Development of the land by different landowners as per the plan decision was essential here. In the project area, there was no certain percentage for social housing. However, when considering the size of serviced urban plots, the average serviced urban plots can serve the needs of middle-income groups and the minimum serviced urban parcels can serve low-income groups. At the same time, the joint ownership structure was improved. In other words, the percentage of independent plots increased, which means the plots are more marketable in the legal market. Besides, the acquisition of public service areas was provided by the public and the community's public service area needs have been satisfied.

4.3 CASE STUDY 2: AYDINLI PROJECT, TUZLA - UPGRADING AN EXISTING ILLEGAL HOUSING AREA

4.3.1 THE LOCATION OF PROJECT AREA AND ITS CHARACTERISTICS

The project area is in Aydınlı Street between TEM (D-80) and E-5 (D100). Sahiba Gökçen Airport is in the west of the project area (Figure 16 and Figure 17). The main transport routes are the access roads between TEM (D-80) and E-5 (D100); accessibility to the project area is easy.

The west side of project area is built up. However, the south and east sides have not been developed. There are some mass housing areas close to the project area. Before land readjustment, the project area was vacant.

FIGURE 16: **THE LOCATION OF THE AYDINLI PROJECT AREA**

FIGURE 17: **THE AYDINLI PROJECT AREA**

Source : Figure 16 and 17: S. Turk, 2011 (Istanbul Metropolitan Municipality (IMM) satellite photo is used).

4.3.1.1 Detailed local plans related to the project area

The land readjustment project was based on the detailed local plan that was approved in October 2005 by the Pendik Municipality. The plan was "Detailed Local Plan related to Aydınlı District Mass Housing Area". Planning the area was implemented in stages, which means that some of the project area was subject to project intervention while other places were untouched until what had been started was completed. The basic function area in the plan was determined as housing. In addition to housing areas, infrastructure and public service areas such as elementary and secondary schools, cultural service areas and green areas were foreseen. The plan aimed at the production of serviced urban plots in accordance with the development of mass housing. That is, large serviced urban plots needed to be produced. The minimum parcel size was given as 2,000 m2. Generally in Turkey, detailed local plans are designed according to land development by different landowners, so there is a tendency for the serviced urban plots to be small. In contrast, in the project area, large urban plots were wanted. In the plan, flexible construction rights for residential areas were given. The floor area ratio was 1:25 and there was no limit for height. The whole of the detailed local plan is shown in Figure 18.

FIGURE 18: **DETAILED LOCAL PLAN THAT INCLUDES THE AYDINLI PROJECT AREA**

Source: Tuzla Municipality, January 2011.

4.3.1.2 Project area before the land readjustment project

Before land readjustment, the area was used as cropland so the cadastral parcels in the project area were mostly large. Also, the cadastral parcels were similar to each other in shape and size. Tenure structure was *de jure* ownership (Figure 19). A large part of the land in the area belonged to the public (60 per cent).

FIGURE 19: **CADASTRAL PARCELS BEFORE LAND READJUSTMENT**

Source: Tuzla Municipality, January 2011.

Table 13 shows the ownership structure before land readjustment and that the standard deviation in size of cadastral parcels was high. Although there were differences in size of cadastral parcels in the project area, there was no fragmentation in the size of cadastral parcels. When considering the average number of owner per plot is 2.25, this means that the number of owners in jointly owned plots was low.

TABLE 13: **THE STRUCTURE OF OWNERSHIP BEFORE LAND READJUSTMENT**

Before Land Readjustment - Number of cadastral parcels: 24							
Plot size (m2)				No. of owners per plot			
Average	S.D	Maximum	Minimum	Average	S.D	Maximum	Minimum
18,015.97	27,926.62	88,284.87	32.91	2.25	3.59	18	1

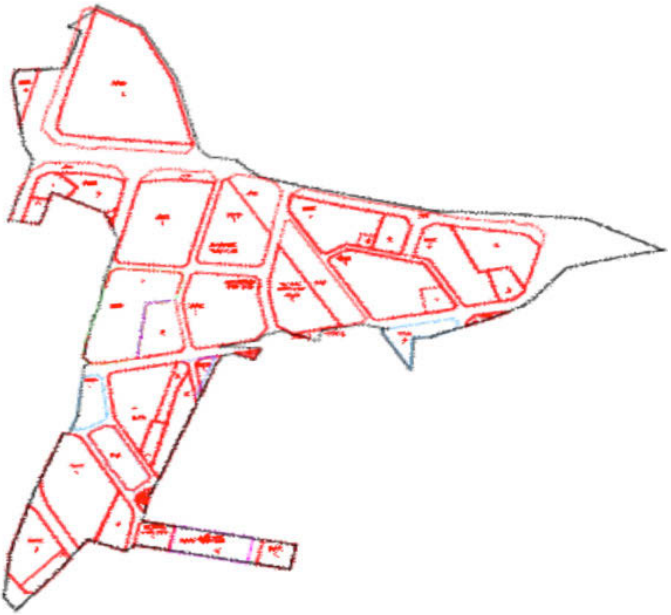
Source: Tuzla Municipality, January 2011.

4.3.1.3 Project area after land readjustment

The aim of the land readjustment project was the same as in the first case study. The land readjustment area was determined by Tuzla municipal committee without landowner consent. The project was administered by the surveying office within the municipality. The Aydınlı Project began in September 2007 and was completed in March 2008. Because the area was empty, there was no dislocation of inhabitants.

While before land readjustment there were 24 cadastral parcels in the project area, afterwards there were 32 serviced urban plots (Figure 20). The project area is 406,586.83 hectares with 40 per cent of it taken as the contribution percentage. With this contribution percentage, public service areas were provided (Table 14 and Table 15) but the percentage of public service areas supplied by expropriation was not determined (Table 15).

FIGURE 20: **SERVICED URBAN PLOTS AFTER LAND READJUSTMENT**



Source: Tuzla Municipality, January 2011.

TABLE 14: **PROJECT AREA AFTER LAND READJUSTMENT**

CATEGORY	AFTER LAND READJUSTMENT	
	AREA (m^2)	PERCENTAGE (%)
Public service areas supplied by contribution percentage	162,563.27	40
Roads	58,573.298	14.4
Squares		
Green areas	40,150.28	9.9
Car parks		
Children's playgrounds		
Elementary and secondary education areas	54,755.65	13.5
Police stations		
Religious building area	9,084.04	2.2
Public service areas supplied by expropriation	-	-

CATEGORY	AFTER LAND READJUSTMENT	
	AREA (m^2)	PERCENTAGE (%)
Hospital	-	
Municipal service areas	-	-
Other public service areas	-	-
Others	-	-

Source: Tuzla Municipality, January 2011.

TABLE 15: **SUMMARY OF THE LAND READJUSTMENT PROJECT**

Total cadastral parcels (m2)	Total serviced urban plots (m2)	Public service areas		Contribution percentage (%)	Percentage of public service areas supplied by expropriation (%)
		Total public service areas supplied by contribution percentage (m^2)	Total of public service areas supplied by expropriation (m^2)		
406,586.83	244,023.56	162,563.27	0	40	0

Source: Tuzla Municipality, January 2011.

The average of the serviced urban plots was 7,625.74 m^2; the minimum plot size was 418.18 m^2; the maximum plot size was 40,831,89 m^2; the number of owners per plot was 2.28; the minimum number of owners per plot was one; and the maximum number of owners per plot was 18. There were differences in both the structure of ownership and parcel size before and after the land readjustment project. In particular, there was a difference in the average size of the serviced urban plots before and after the project. Before, while the average size of cadastral parcel was 18,015.97 m^2, after the project the average size of serviced urban plots decreased to 7,625.74 m^2. However, the ownership structure hardly changed, going from average owners per plot of 2.25 to 2.28 (Table 16).

Before land readjustment, in 2005, the average value of land compiled by the municipality for taxation purposes was TRY 32 per m^2; in 2010, the value was TRY 145 per m^2. This means that the project led to a considerable increase in land value, which was much higher than the rate of change in municipal land prices.

The benefits of the project were the production of serviced urban plots for mass housing in large sizes; the supply of service areas such as roads, green areas, elementary and secondary education areas and areas for religious buildings; and the readjustment of landownership and plot borders. The project provided a good standard subdivision layout, plots with uniform service provision, service areas, and a supply of land to meet the demand for mass

housing for low-income groups[9]. One of the main landowners in the project areas is TOKI (The Municipal Agency responsible for mass housing). After the project, TOKI built 984 housing units for low-income groups . Most of the houses are finished; however, the construction of service areas and infrastructure is not.

As stated before, public service areas are provided by the contribution percentage. The public services taken by the contribution percentage are considered as primary infrastructure and service areas that directly serve the parcels and their immediate surroundings. In Aydınlı, land for public service areas was provided by the contribution percentage; however, as is usual, construction on the land for service areas was not included in the project. In this area, service areas are built by TOKI; in the project area, there was no public service area supplied by expropriation within land readjustment. For landowners, the benefits include the conversion of land from cadastral parcels into serviced urban plots in regular forms and sizes, and the continuation of ownership.

TABLE 16: **THE STRUCTURE OF OWNERSHIP AFTER LAND READJUSTMENT**

After land readjustment - Number of cadastral parcels: 32							
Plot size (m2)				No. of owners per plot			
Average	S.D	Maximum	Minimum	Average	S.D	Maximum	Minimum
7,625.74	8,641.76	40,831.89	418.18	2.28	3.13	18	1

Source: Compiled from information from Tuzla Municipality in January,2011.

4.4 CASE STUDY 3: DOLAYOBA PROJECT, PENDIK – UPGRADING OF AN INFORMAL SETTLEMENT

4.4.1 THE LOCATION OF THE PROJECT AREA AND ITS CHARACTERISTICS

The project area is located on E-5 (D100) so it is easily accessible (Figure 21 and Figure 22). The area was a peripheral settlement before the 1980s. Dolayoba was a suitable settlement for migrants because of the availability of affordable land due to illegal subdivisions, and its closeness to the industrial area in the region. Most inhabitants bought their land illegally. The project area had illegal subdivisions before 1985 and settlers had title deeds to shares of parcels; the buildings on those parcels were constructed without permits. The buildings in the project area had tapu tahsis documents that were obtained in the 1980s through amnesty laws. The documents provided settlers with *de facto* usage rights and some form of legality. A development plan for improvement was prepared by the municipality and Amnesty Law No. 2981/3290 was applied to allow people to have title deeds. The implementation of the plan was by a special land readjustment method, applied in accordance with Article 10-c of Amnesty Law No. 2981/3290. The special method is different from land readjustment in

9 In the whole of the planning area, 5,000 housing units are planned to be built. The land readjustment project area includes part of the whole planning area.

accordance with Reconstruction Law No. 3194, and its aim in the project area was to legalize illegal subdivisions and buildings on the parcels based on their *de facto* use.

FIGURE 21: **THE LOCATION OF DOLAYOBA PROJECT AREA**

FIGURE 22: **THE DOLAYOBA PROJECT AREA**

Source: Figure 21 and 22: S. Turk, 2011 (Istanbul Metropolitan Municipality (IMM) satellite photo was used).

4.4.1.2 Detailed local plan decisions related to the project area

The land readjustment project was based on "Development plan for improvement (upgrading) of Dolayoba 11th zone", approved in June 2000. Development plans for upgrading were within the scope of the Amnesty Law No. 2981/3290. The main approach in these plans was to create serviced urban parcels of a maximum 400 m^2 to allow the construction of four-storey apartment houses. The *de facto* use rights were accepted in the development plans for improvement. Generally, therefore, the service areas and infrastructure were substandard. In Figure 23, the plan shows that roads were narrow and there were not enough public service areas with only roads and elementary education areas on the plan. The area was designated for residential and commercial use. The plots were small because of the existing structure and the size of each building was defined by the existing conditions of buildings. As a development right, the maximum height for housing areas was 12.50 m. For commercial areas, the floor area ratio was 1:75, and the maximum height was 15.50 m. The whole of the plan is seen in Figure 23.

FIGURE 23: **LOCAL PHYSICAL PLAN, INCLUDING THE DOLAYOBA PROJECT AREA**

Source: Pendik Municipality, January 2011.

4.4.1.3 Project area before land readjustment

In the project area before land readjustment, there was great diversity in parcel size and a fragmented ownership structure. Although some roads have been opened in the project area, many roads were closed. Some infrastructure and service areas were provided by the previous partial implementation (voluntary method, expropriation and small land readjustment projects) (Figure 24), but some of them were not provided in the project area. Table 17 shows the characteristics of the area before readjustment.

FIGURE 24: **CADASTRAL PARCELS BEFORE LAND READJUSTMENT**

Source: Pendik Municipality, January 2011.

TABLE 17: **THE STRUCTURE OF OWNERSHIP BEFORE LAND READJUSTMENT**

Before land readjustment - Number of cadastral parcels: 139							
Plot size (m2)				No. of owners per plot			
Average	S.D	Maximum	Minimum	Average	S.D	Maximum	Minimum
885.5	2,089.89	15,755	9	4.56	11.91	91	1

Source: Pendik Municipality, January 2011.

4.4.1.4 Project area after land readjustment

The aim of the land readjustment project was to legalize illegal subdivisions and buildings on the parcels; to produce new serviced urban plots of a maximum 400 m^2; to supply public service areas such as roads and an elementary education area; to convert cadastral parcels into serviced urban plots in regular forms and sizes; and to ease land ownership problems. The readjustment area was determined by the Pendik Municipal Committee without landowner consent. A call was then made for tenders by the Pendik Municipality and a private company was awarded the tender. The Şeyhli Project implementation started in December 2003 and completed in October 2004. Inhabitants in the project area were not dislocated during the project because consideration had been given to their *'de facto'* situations.

The project area was 122,862.30 m^2. The contribution percentage was not taken from some parcels because of the previous partial implementation. The area that was taken by the contribution percentage was 107,539.31 m^2, or 0.32 per cent, and this provided the roads and elementary education area (Table 18 and Table 19). No public service areas were supplied by expropriation (Table 20).

FIGURE 25: **SERVICED URBAN PLOTS AFTER LAND READJUSTMENT**

Source: Pendik Municipality, January 2011.

TABLE 18: **PROJECT AREA AFTER LAND READJUSTMENT**

CATEGORY	AFTER LAND READJUSTMENT	
	AREA (m2)	PERCENTAGE (%)
Public service areas supplied by contribution percentage	34,762.07	32
Roads	28,828.6	26
Squares		
Green areas		
Car parks		
Children's playgrounds		
Elementary and secondary education areas	5,933.47	6
Police stations		
Religious buildings		
Public service areas supplied by expropriation		
Hospital	-	-
Municipal service areas	-	-
Other public service areas	-	-
Others	-	-

TABLE 19: **SUMMARY OF THE LAND READJUSTMENT PROJECT**

Total cadastral parcels (m2)	Total serviced urban plots (m2)	Public service areas		Contribution percentage (%)	Percentage of public service areas supplied by expropriation (%)
		Total public service areas supplied by contribution Percentage (m2)	Total of public service areas supplied by expropriation (m2)		
122,862.30* 107,539.31 (the area that is taken contribution percentage)	79,494.40	34,762.07	-	32	-

Source: Pendik Municipality, January 2011.

* Size of project area (122,862.30 m^2) - total of serviced urban plots (79,494.40m^2) – the area that is not taken contribution percentage (8,605.83 m^2) = total of public service areas (34,762.07 m^2)

* Total public service area (34,762.07 m^2) / total area that is taken contribution percentage (107,539.31 m^2) = contribution percentage 32 per cent.

* The contribution percentage had been taken from some cadastral parcels before, so these cadastral parcels are excluded from the total.

The land readjustment project produced 252 serviced urban plots with an average area of 315.5 m^2. The minimum parcel size was 9m^2, and the maximum parcel size was 3719.06 m^2. Number of owners per plot was 3.75. The maximum number of owners per plot was 91 (Table 20). The average size of the plots before the project was 885.5 m^2; after it was 315.5 m^2. Before readjustment, the average number of owners per plot was 4.95, which decreased to 3.75 afterwards. As mentioned earlier, before Reconstruction Law No. 3194, illegal subdivisions created many joint owners within a large parcel of 10 hectares. Parcels were also separated according to *de facto* uses. Because of illegal subdivisions in the project area, Article 10-c of Amnesty Law No. 2981/3290 was implemented. The conversion of joint ownership into separate ownership was largely successful in the project area.

As the constraints related to joint ownership structure were partly removed, the value increased. Before land readjustment, the average value of land compiled by the municipality for taxation purposes TRY 50.7 per m^2 in 2002, and TRY 113.96 per m^2 in 2004. After the project, in 2010, the value was TRY 220.31 per m^2. For landowners, the land readjustment increased the land's marketability. However, because plan decisions were based on *de facto* conditions, the quality of the urban environment was low.

TABLE 20: **THE STRUCTURE OF OWNERSHIP AFTER LAND READJUSTMENT**

After land readjustment - Number of cadastral parcels: 252							
Plot size (m2)				No. of owners per plot			
Average	S.D	Maximum	Minimum	Average	S.D	Maximum	Minimum
315.5	361.80	3,719.06	9	3.75	6.78	91	1

Source: Compiled from information from Pendik Municipality in January, 2011.

The land readjustment project led to the legalization of illegal subdivisions and buildings on the parcels. It produced service urban plots and supplied more land for housing. A specific percentage for social housing was not defined in project area; however serviced urban plots produced by readjustment can serve low- and middle-income groups because of their size. In this sense, the plots produced after readjustment can serve the self-help housing sector.

4.5 CASE STUDY 4: AYAZMA PROJECT, BAŞAKŞEHIR - UPGRADING OF AN IRREGULAR INFORMAL SETTLEMENT

4.5.1 THE LOCATION OF PROJECT AREA AND ITS CHARACTERISTICS

Ayazma is a squatter settlement on the edge of the small valley near the west of Istanbul. The project area is in the east side of the Atatürk Olympiad Stadium. The main transport routes are the access roads from TEM (D-80). Close by are the drinking water distribution centre of the Istanbul Water and Sewerage Authority (ISKI), Kayabaşı Mass Housing area and some industrial sites (Figure 26 and Figure 27). Two flagship projects were started nearby: the first was the Küçükçekmece Lake Tourism and Cultural Centre Urban Transformation project (designed by Korean architect Ken Yeang), the second was the Olympic Village that opened in 2002.

The project area next to the Olympic Village was envisioned as being integrated with the Olympic Stadium and the Olympic Village in accordance with a clearing and redesign plan. Basic starting points for the urban renewal project were (Turgut and Çaçtaş Ceylan, 2010: p. 345):

- To create habitats that are safe from earthquakes;
- To improve illegal housing areas;
- To realize an integrated and extensive planning and design process for the Olympic Village;
- To ensure support of the inhabitants of the area through social projects; and
- To develop good practice for the district.

Based on those starting points, the Küçükçekmece Municipality proclaimed the project area an "area of urban renewal" through a Municipal Council decision dated 4 July, 2005 (No. 2005/2).

In Ayazma, there were two different tenure structures. The first, *de jure* owners, meant 48 per cent of the project area was under public ownership; the rest was in private ownership. However, the areas owned privately were formed by illegal subdivisions and the dwellings did not have construction permits. These illegal dwellings constituted 67 per cent of dwellings in the project area. Squatter houses were built on the public property, which constituted 33 per cent of the dwellings in the project area. Squatters did not have *de jure* ownership; inhabitants of public land were "occupiers" with no rights.

FIGURE 26: **THE LOCATION OF AYAZMA PROJECT AREA**

Source: S.Turk, 2011 (Istanbul Metropolitan Municipality (IMM) satellite photo was used).

FIGURE 27: **THE AYAZMA PROJECT AREA**

Source: S.Turk, 2011 (Istanbul Metropolitan Municipality (IMM) satellite photo was used).

4.5.1.1 Urban renewal process and detailed local plan decisions

Following the announcement of the Küçükçekmece urban renewal project, a tripartite protocol was signed by TOKI, the Istanbul Metropolitan Municipality and the Küçükçekmece Municipality in June 2004. The Istanbul Metropolitan Municipality assumed the coordination of the project, TOKI provided financial resources in return for the ownership right of the area after slums were demolished, as per the relevant legislation, and to be able to begin construction of new dwellings in accordance with the detailed local plan. TOKI and the Küçükçekmece Municipality also coordinated the agreements signed with the landowners and occupiers during the project. The Küçükçekmece Municipality also assumed the role of the project executive, established one-to-one dialogues with inhabitants of the region, conducted a number of studies in connection with land surveys and the determination of "rightful owners", executed agreements and drew up lots, and carried out transport and demolishing of slums with its own manpower and resources (Turgut and Ceylan, 2010b, p. 356).

The Küçükçekmece Municipality also formed and commissioned an urban renewal unit within itself in June 2005[10], under which analyses and surveys were conducted on the physical situation – ownership status, right ownership and social profile. This process also introduced the project to the public. During the development phase, regular meetings and interviews were held with the public to provide information and avoid any disturbance or uncertainties, including one-to-one interviews with the inhabitants and their representatives. Every housing unit was given documents about the project and the relevant process.

The unit conducted a study between June and July 2005 to determine the current situation, including measuring buildings and taking detailed photographs of the region to determine the buildings' values and ownership rights. All information and the documents and data provided by the *de facto* owners were entered into a database and transferred to a registry system. Finally, appraisal reports were prepared on the basis of the data (Turgut and Ceylan, 2010a, p. 93).

Social profile analyses were made along with studies on the physical location and the rightful owners. A household questionnaire survey (100 per cent of households) was conducted in the project area to get information about the demographic, socio-economic and cultural profile of the inhabitants[11] .

Another important stage of the urban renewal process was to obtain the consent of occupiers that did not have *de jure* ownership and those owners that had title deeds (Turgut and Ceylan, 2010b); i.e. in the Ayazma renewal project two different agreements were made. The first was between

10 This unit constituted by five urban planners, one geological engineer, two civil engineers, two topographical engineers, one computer technician and a project consultant conducted the studies in connection with Ayazma urban renewal project.

11 According to the questionnaire, the main reason given for moving to Ayazma was that it was close to a factory district (55 per cent), relatives and earlier migrants from the south-east (31 per cent). One-quarter was in regular work, sustaining the rest, but few had any job security; one-third was illiterate, the proportion being higher amongst women (Turgut and Ceylan, 2010b; Lovering and Turkmen, 2011).

occupiers who did not have title deeds and the Küçükçekmece Municipality and TOKI (Mass Housing Administration). According to the agreement, the occupiers agreed to give up their squatter houses in return for a housing unit in the mass housing area made by TOKI in Bezirganbahçe (within the Küçükçekmece district). In the project area, the demolition value of squatter houses was determined by the Küçükçekmece Municipal Council, and was for their existing unit rather than the full value of the land and building. TOKI also accepted it would give the housing units, taking into consideration the construction costs. In the absence of legal guarantees to their property, those inhabitants who had no title deed accepted the offer. The municipality and TOKI effectively used people's legal vulnerability and tenure insecurity to persuade them to sign the agreements.

Generally, in urban renewal projects in Turkey, the legal complexities create deep divides between those with tapu tahsis documents and "occupiers". Because the former group has some legal security, they are more resistant to the project and are more able to refuse municipal offers. Occupiers, in contrast, are more willing to participate in the project and receive a TOKI unit (Kuyucu and Unsal, 2010, p.1486). In the Ayazma project area, the majority of occupiers accepted the agreement. A small number (18 families) remained on site (Lovering and Turkmen, 2011, p.86). By 2006, Ayazma hosted around 1,243 houses, of which 130 households were classified as tenants. Tenants had been told early in the negotiation process that they were "rightful" tenants; none were eventually recognized as such by the Kucukcekmece Municipality. Paying TRY 50-150 a month in rent in Ayazma, they were unable to find equally cheap accommodation elsewhere (Lovering and Turkmen, 2011, p. 83).

When there was a difference between the demolition value of a squatter house and the cost of a housing unit in Bezirganbahçe Mass Housing Area, this difference was covered by the illegal settler, who could pay the difference in 180 months. In the agreement, housing units in the Bezirganbahçe Mass Housing Area were to be distributed to the settlers by drawing lots, after which the squatter houses would be evacuated by the settler (Turgut and Ceylan, 2010a, p.105).

The second agreement was between landowners, the Küçükçekmece Municipality and TOKI (Mass Housing Administration). The deeds of consent were issued within the framework of the assumptions set by TOKI and the Küçükçekmece Municipality.12 A 90 m2 house was offered for each 250 m2 plot, which meant an allocation of 1 m2 of residence per 2.78 m2 of plot. Landowners were granted the right to select a 90 m2 housing unit in the Bezirganbahçe housing area and a 95 m2 or 138 m2 residence in the Ayazma Urban Renewal Area. If the surface area of residence equal to the plot was less than the total surface area of the residence selected, the owner was debited TRY 650 per m2 for the Bezirganbahçe housing estates and TRY 800 per m2 for the Ayazma urban renewal area. If the surface area of residence equal to the plot was more than the total surface area of the residence selected, the owner was credited TRY 300 per m2 by TOKI, the public housing agency.

12 The project area was within the jurisdiction of Küçükçekmece Municipality before 2008.

The agreement was with five groups:

- Landowners who held land up to 250 m2. These landowners had the option of 90 m2 of housing in Bezirganbahçe Mass Housing Area or 95 m2 of housing in the Ayazma Renewal project area.

- Landowners who held land between 250-385 m2. They had the right to a housing unit of 138 m2 in the Ayazma urban renewal area.

- Landowners with land between 386 and 648 m2. The landowners had right to two housing units of 138 m2 in Ayazma urban renewal area.

- Landowners with land between 649-1,000 m2. They had the right to three housing units of 138.43 m2 and 94.1 m2 in the Ayazma urban renewal area or a housing unit with 90 m2 in the Bezirganbahçe mass housing area.

- Landowners that had land over 1,000 m2. The cadastral parcels of the landowners were included in the land readjustment project. Their parcels change from a cadastral parcel into the serviced urban plot in urban renewal area (Turgut and Ceylan, 2010, p.107).

Example of an application

The title owner residing in the Ayazma area has a residence on a 91.8 m^2 plot and is granted the right to select a 90 m^2 residence at the Bezirganbahçe housing estate or a 95 m^2 residence at the Ayazma Urban Renewal Area. Assuming that the title owner selects a residence at the Bezirganbahçe housing estate:

1. As a 90 m^2 residence was offered for each 250 m^2 plot, 1 m^2 of residence would be offered per 2.78 m^2 of plot. Therefore, the title owner is entitled to a 33.08 m^2 (=91.8 m^2/2.78) finished residence in return for his/her plot;

2. Demolition value payable to the title owner is TRY 4,897.7;

3. In case of a residence selected at the Bezirganbahçe housing estates, cost per m^2 of a residence will be TRY 650 per m^2 and demolition value will be TRY 4,897.7/TL 650 = 7.53 per m^2.

The title owner shall therefore be entitled to a 33.02 m2 + 7.53 m2 = 40.55 m2 finished residence.

The surface area of a residence at Bezirganbahçe is 90 m^2, in which case 90 m^2 - 40.55 m2 = 49.55 m^2 and 49.45 m^2 X 650 m2/TRY (cost of a residence at Bezirganbahçe) = TRY 32,142.5. The amount payable by the title owner is TRY 32,142.5, payable in 180 monthly instalments.

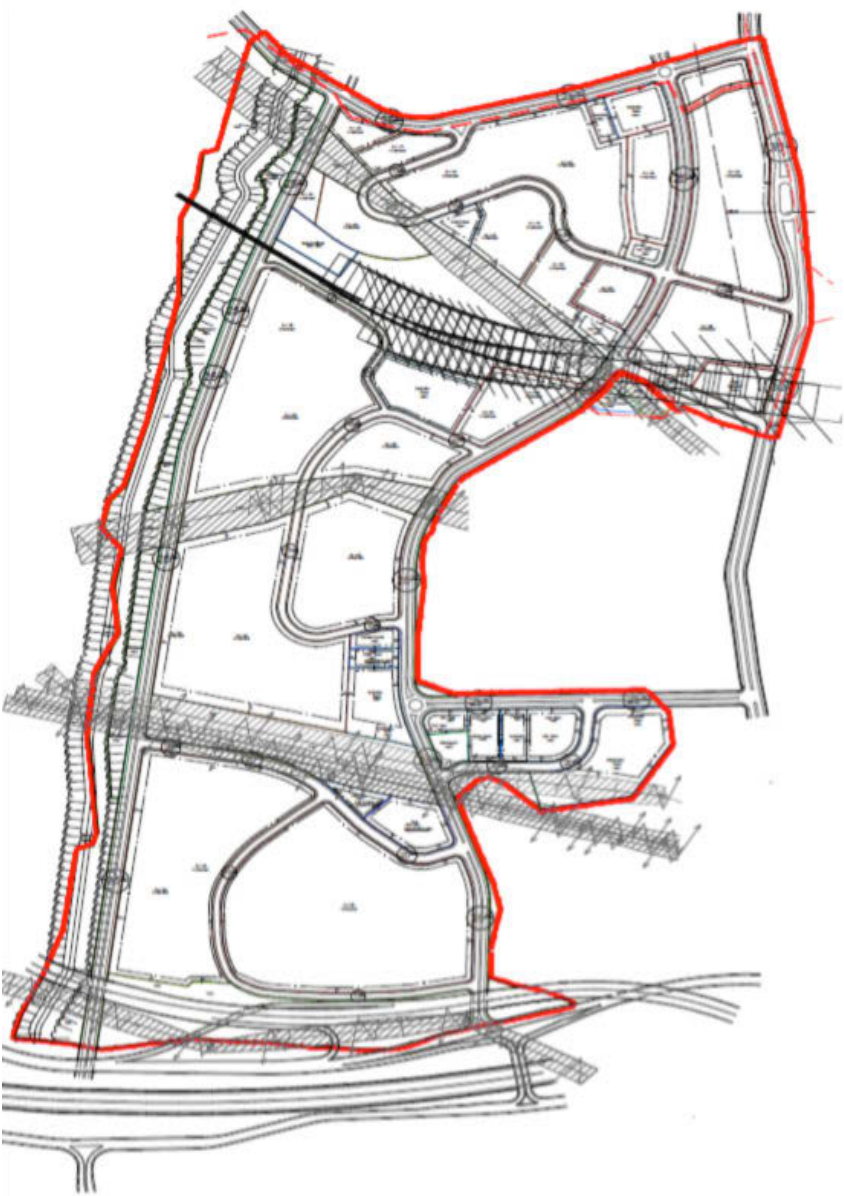
Source: Turgut and Ceylan, 2010a.

After the agreements, housing units in the Bezirganbahçe Mass Housing Area and in Ayazma were distributed to both illegal settlers and landowners who had a title as a result of drawing of lots. The drawing of lots was done in five stages. The first stage was for illegal settlers; after this 943 households were moved to the housing units in Bezirganbahçe Mass Housing Area. The other draws were made at different times (February 2006; April, 2007; August 2007; May, 2008; and February 2009) and included the landowners. In this process, 1,760 housing units were determined (Turgut and Ceylan, 2010, p.118) and 58 per cent of the rights owners who won the draw moved to Bezirganbahçe housing estates. There are 258 residence owners still residing in the Ayazma area and are waiting for the completion of the buildings at Ayazma before they can move in.

A land-use plan was prepared by the Istanbul Metropolitan Municipality and approved. Upon TOKI's assignment as the government body in charge of squatter areas in 2007, the plans already approved were revised by TOKI, first in December 2008 and then in May 2009. However, the title owners of the plots objected to those revisions and filed suits against the decisions taken on the plans, which resulted in partial cancellations. Following this, TOKI prepared a new detailed local plan named "The Plan for Ayazma Squatter Transformation and Urban Renewal Area", which was approved by TOKI in March 2011. This plan was the basis for land readjustment in the area.

The basic functional areas in the plan were housing and commercial areas. In addition to these areas, roads, recreation areas, administrative service areas, metro station areas, nursery, social and cultural service areas were included. The plan decisions were based on the production of serviced urban plots to develop mass housing. The minimum parcel size in the plan decisions was 2,000 m^2. More flexible construction rights for residential areas were given in the plan. For housing areas, the floor area ratio was 2:0 and there was no limit on height. The whole of the local physical plan is in Figure 28.

FIGURE 28: **DETAILED LOCAL PLAN THAT INCLUDES THE AYAZMA PROJECT AREA**

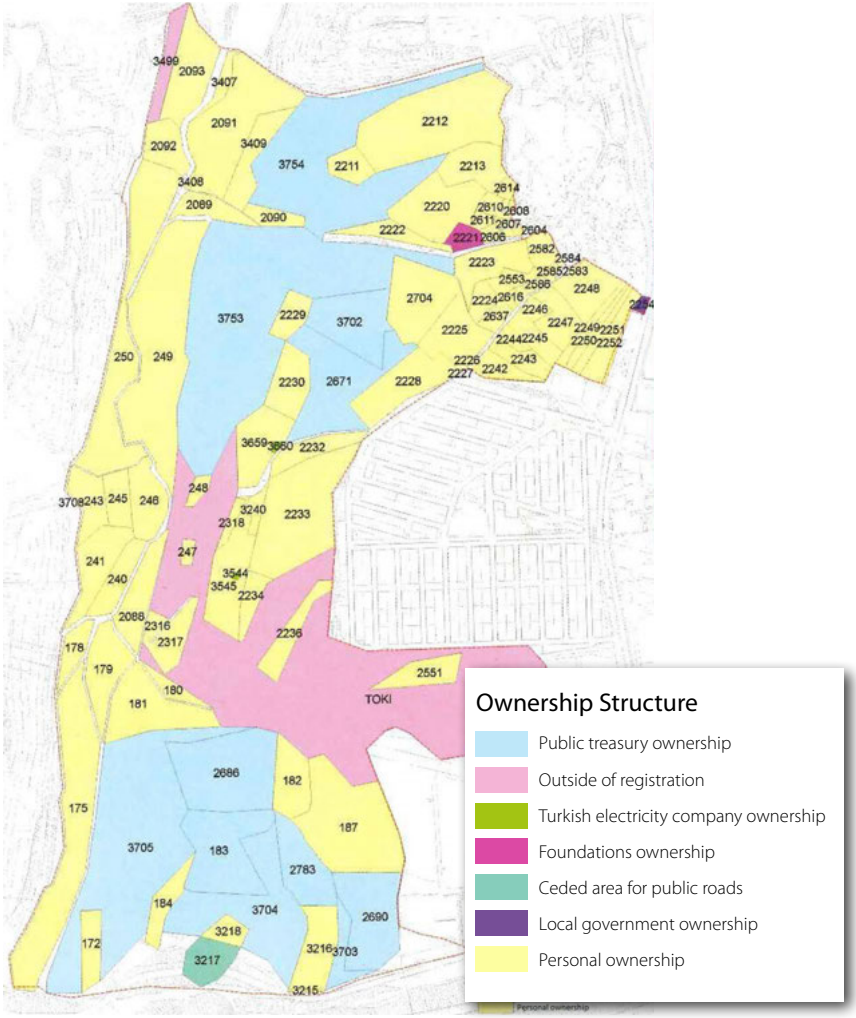


Source: Başakşehir Municipality, January 2011.

4.5.2 PROJECT AREA BEFORE LAND READJUSTMENT

Cadastral parcels were irregular – some were very large, some were very small and their forms were not suitable for the renewal plan. Also, before land readjustment, some roads had been provided by a previous partial implementation (voluntary method or expropriation) (Figure 29).

FIGURE 29: **CADASTRAL PARCELS BEFORE LAND READJUSTMENT**



Source: Istanbul Cadastral Office, January 2011.

Table 21 shows the pre-adjustment situation, illustrating that the standard deviation in the size of cadastral parcels and number of owners per plot was high. In the renewal area, there was a highly ambiguous and confusing tenure structure. In Ayazma, some were *de jure* owners formed by way of illegal subdivision and others were occupiers who do not have *de jure* ownership.

TABLE 21: **THE STRUCTURE OF OWNERSHIP BEFORE LAND READJUSTMENT**

After land readjustment - Number of cadastral parcels: 102							
Plot size (m2)				No. of owners per plot			
Average	S.D	Maximum	Minimum	Average	S.D	Maximum	Minimum
6,830.09	22,169.70	273,258.14	35.00	4.9508	14.504	153	1

Source: Pendik Municipality, January 2011

4.3.2 PROJECT AREA AFTER LAND READJUSTMENT

The aim of the project was to produce new serviced urban plots suitable for mass housing, provide land assembly, supply public service areas, eliminate illegal subdivisions and uses, and enable original landowners to stay in the area. In 2007, with the changes in Squatter Law No. 775, the power in the squatter settlements was vested in TOKI. Also, as stated before, TOKI as a central government unit also had the authority to perform land readjustment projects in illegal settlements, urban renewal areas and areas where the ownership belonged to TOKI. The project was tendered by TOKI and a private company was engaged. The Ayazma project started in May 2009 and was completed in June, 2011.

Before readjustment there were 106 cadastral parcels in the project area; afterwards there were 112 serviced urban plots (Figure 30). The project area was 1,257,963.50 m^2, the contribution percentage was 0.37, and the percentage of public service areas supplied by expropriated land was 0.069. The contribution percentage provided recreation areas, administrative service area, metro station areas, nursery, and social and cultural service areas (Table 22 and Table 23).

FIGURE 30: **SERVICED URBAN PLOTS AFTER LAND READJUSTMENT**

Source: Istanbul Cadastral Office, January 2011.

TABLE 22: **PROJECT AREA AFTER LAND READJUSTMENT**

CATEGORY	AFTER LAND READJUSTMENT	
	AREA (m2)	PERCENTAGE (%)
Public service areas supplied by contribution percentage	475,065.54	37
Roads	475,065.54	37
Squares	-	-
Green areas	-	-
Car parks	-	-
Children's playgrounds	-	-
Elementary and secondary education areas	-	-
Police stations	-	-
Religious buildings	-	-
Public service areas supplied by expropriation	87,426.49	6.9
Health services	9,061.26	-
Administrative service areas	12,417.40	-
Recreation areas	41,694.43	-
Others (metro station areas, nursery, social and cultural service area)	24,253.40	-

Source: Pendik Municipality, January 2011.

TABLE 23: **SUMMARY OF THE LAND READJUSTMENT PROJECT**

Total cadastral parcels (m2)	Total serviced urban plots (m2)	Public service areas		Contribution percentage (%)	Percentage of public service areas supplied by expropriation (%)
		Total public service areas supplied by contribution Percentage (m2)	Total of public Service Areas supplied by expropriation (m2)		
1,257,963.50-1,287,249.79* (the area that is taken contribution percentage)	782,897.96	475,065.54	87,426.49	37	6.9

Source: Pendik Municipality, January 2011.

* Size of project area (1,257,963.50 m^2) - total serviced urban plots (782,897.96) = total public service areas (475,065.54 m^2). Total public service areas (475,065.54 m^2) / total area that is taken as a contribution percentage (1,257,963.50 m^2) = contribution percentage (37%)

Note: The contribution percentage was taken from some cadastral parcels before. Therefore, these cadastral parcels are excluded from the total.

After the land readjustment project, the average of the serviced urban plots was 9,187.71m^2, the minimum parcel size was 361 m^2, the maximum the service urban plot size was 113,445.46 m^2, the number of owners per plot was 7,9, the maximum number of owners per plot was 102. The average parcel size increased from 6,830.09 m^2 to 9,187.1m^2. The average number of landowners per parcel also increased from 4.9 to 7.9 (Table 24).

The result of the project demonstrates that land readjustment is used for land assembly. In other words, serviced urban plots have become appropriate for the production of mass housing. Although land assembly was provided, the number of landowners per parcel has increased and, after land readjustment, the serviced urban plots produced are still in a joint ownership structure.

Construction works on urban plots with joint ownership structure or the sale of these plots are only possible with the participation of all owners. For this reason, it is evident that land readjustment requested later will not occur in a short time. However, the difficulty can be overcome with densification. For example, owners can take housing units in return for their own shares of large parcels for mass housing. Development rights in the urban renewal area are defined flexibly, which allows for the production of a large number of residences, and in which case the owners of properties that are divided into shares can get residence units in return for their shares.

TABLE 24: **THE STRUCTURE OF OWNERSHIP AFTER LAND READJUSTMENT**

After land readjustment - Number of cadastral parcels: 102							
Plot size (m2)				No. of owners per plot			
Average	S.D	Maximum	Minimum	Average	S.D	Maximum	Minimum
6,830.09	22,169.70	273,258.14	35.00	4.9508	14.504	153	1

Source: Information from Pendik Municipality in January, in 2011.

Instead of land development by different landowners, residential development was achieved by the public, private developers, public-private partnership and cooperatives. Large-scale housing projects may be realized in the area. Accordingly, construction of 6,600 residences is planned in the entire project area. TOKI is one of the major landowners, so residential develop-

ment in the area is to be provided through TOKI. The construction of 664 social houses under the squatter transformation project has been tendered by TOKI and civil works have been completed to a great extent (Figure 31 and Figure 32). Also, in the south of the urban renewal area, some residences are being constructed on two plots under a "revenue sharing agreement" entered into by Emlak Konut, a subsidiary company of TOKI, and a private building company (a public-private partnership). The number of residences built under the said project is 3,148. Those residences are intended for medium-and high-income level groups. The project is at the construction stage (Figure 32).

Relocation of most landowners to the area after the project is important in terms of social mixing in the area, as this situation can prevent those belonging to the high-income level group only from occupying the area. However, the relocation of landowners after projects into the area does not always guarantee sustainability. This is dependent on the type of landowners. For example, landowners who were present before readjustment prefer to stay in the area afterward. However, absentee landowners who were not present before the project prefer to sell their housing units. In the Ayazma renewal project, when considering conditions of agreements, housing in the renewal areas were intended for the medium- and high-income level groups. However, the amount of social housing is not determined as a percentage.

On the other hand, the Bezirganbahçe Housing Area, from where people were evacuated, is designated for low-income level groups (Figure 31). In the Ayazma project, although landowners were relocated to the area after the project, medium- and high-income level groups are targeted as residents of the renewal area. This can create gentrification and makes the presence of landowners in urban renewal area difficult.

Social housing in Ayazma project © S.Turk, 2012

FIGURE 31: **LAYOUT PLAN OF THE HOUSING PROJECT IMPLEMENTED IN A PUBLIC-PRIVATE PARTNERSHIP**

Source: http://www.myworld-europe.com/galeri

The construction stage of the housing project implemented with a public-private partnership in the renewal area © S.Turk, 2012

Social housing in Bezirganbahçe Housing Areas © S.Turk, 2012

So far, 664 housing units have been constructed in the urban renewal area. Social housing was also constructed in Bezirganbahçe Housing Areas. The municipality prepared some social programmes to help those who moved to Bezirganbahçe Housing Areas to adapt (Figure 35). However, the policies related to tenants are limited.

Conditions before the urban renewal project © Archive of Küçükçemece Municipality (2011)

Social programmes by Küçükçekmece Municipality for the adaptation of inhabitants who moved to Bezirganbahçe Housing Areas © Archive of Küçükçemece Municipality (2011)

The land readjustment project provided for the elimination of illegal subdivisions and buildings on the parcels and squatter houses. No expropriation was done in the evacuation and cleaning of the urban renewal area. This decreased costs related to land assembly and clearing the area. The project also provided the acquisition of public service areas from the public in the urban renewal area. Because the renewal area is large, the percentage of roads and public service areas is big. All roads were met by the contribution percentage while other public service areas were met by way expropriation within the project.

There has been a considerable increase in land value after the readjustment process, despite a reduction in size. Prior to the process, it was an illegal settlement area made up of illegal subdivisions and squatters, and the value of illegal subdivisions was low. Buildings that had no construction permit were situated there, the value of which was also low. Before the land readjustment in 2003 the official land value compiled by the municipality for taxation purposes was TRY 45.33 per m^2. After the project, in 2010, the value was TRY 590 per m^2. Although some cadastral parcels were taken as a contribution percentage, the value of serviced urban plots has increased compared with their value when they were illegal.

4.6 OVERALL RESULTS OF THE CASE STUDY AREAS

Each land readjustment project described in this report has different aims and outcomes. The following table is a comparison of the main objectives, results and characteristics of each of the four case studies.

TABLE 25: **COMPARISON OF THE FOUR CASE STUDIES**

	Şeyhli Project	Aydınlı Project	Dolayoba Project	Ayazma Project
Contribution percentage	29.3%	40%	32%	37%
Percentage of public service areas supplied by expropriation	0.5%	-	-	6.9%
Location	Partly developing area	New developing area	Inner city areas	Inner city area
Characteristics	Legal settlements despite its slum-like characteristics.	Legal settlements	Squatter houses and illegal subdivisions	Squatter houses and illegal subdivisions

	Şeyhli Project	Aydınlı Project	Dolayoba Project	Ayazma Project
Tenure structure	• Fragmented ownership structure • De jure ownerships • Jointly owned parcels in the area because of illegal subdivision before 1985	De jure ownerships	• De jure ownerships • De facto use rights • Illegal subdivisions and buildings on the parcels	• De jure ownerships • De facto use rights • Illegal subdivisions and buildings on the parcels • Squatter houses
Type of land readjustment	The use of land readjustment in new development areas	The use of land readjustment in new development areas	The use of land readjustment in upgrading existing illegal housing areas for regularization of land tenure	The use of land readjustment in renewal of irregular and informal settlements
Legal sources used	Title 18 of Reconstruction Law No. 3194 with the addition of Article 1 of Law No. 2981/3290 in 1986	Title 18 of Reconstruction Law No. 3194	Article 10-c of Amnesty Law No. 2981/3290	Article of Municipality Law No. 5393 Law No. 5793
Aim of the project	• To produce as many serviced urban as possible with individual ownership, to supply public service areas such as roads and parks available for public use • To convert cadastral parcels into serviced urban plots in regular forms and sizes • To ease land ownership problems	• To produce large, serviced urban plots according to local physical plan decisions • To supply public service areas such as roads and parks for public use • To convert cadastral parcels into serviced urban plots in regular forms and sizes	• To legalize illegal subdivisions and buildings on the parcels that do not have construction permits • To produce new serviced urban plots of maximum 400 m^2 • To supply public service areas such as roads and elementary education areas • To convert cadastral parcels into serviced urban plots in regular forms and sizes • To ease land ownership problems	• To produce new serviced urban plots suitable for mass housing areas • To provide land assembly, and public service areas • To eliminate illegal subdivisions and squatter houses • To enable the original landowners to stay in the area

	Şeyhli Project	Aydınlı Project	Dolayoba Project	Ayazma Project
Plan decisions	Small parcel size Limited development right	Large parcel size More flexible construction rights	• Small parcel size • Limited development right	• Large parcel size • More flexible construction rights
Main approaches in developing of serviced urban plots	Land development by different landowners	Land development by public, public-private partnerships, developers and cooperatives	Land development by different landowners	Land development by public, public-private partnerships, developers and cooperatives
Outcomes of the project	• Urban plots of separate ownership • Increase in the number of serviced urban plots • The conversion of cadastral parcels into serviced urban plots in regular forms and sizes • Supply public service areas such as roads and parks available for public use • Removing of land ownership problems	• Urban plots suitable for construction of mass housing areas • Supply public service areas such as roads and parks available for public use • The conversion of cadastral parcels into serviced urban plots in regular forms and sizes	• Urban plots of separate ownership • Increase in the number of serviced urban plots • The conversion of cadastral parcels into serviced urban plots in regular forms and sizes • Supply public service areas such as roads and parks available for public use • Removing of land ownership problems	• Urban plots • suitable for • construction of mass housing areas • Supply public service areas such as roads and parks available for public use • The conversion of cadastral parcels into serviced urban plots in regular forms and sizes
Land-related outcome	Land fragmentation (Legalized illegal subdivision)	Land assembly (Urban plots for mass housing areas)	Land fragmentation (Legalized illegal subdivision)	Land assembly (Urban plots for mass housing areas)
The capacity in supply of public service areas	Roads, green areas, elementary education areas, religious building area were provided	Roads, squares, car parks, green areas, parks, playgrounds, mosques, police stations, and elementary and secondary schools were provided	Roads and elementary schools were provided	Roads, health service areas, administrative service areas, and recreation service areas were provided

	Şeyhli Project	Aydınlı Project	Dolayoba Project	Ayazma Project
The capacity to supply social housing	No direct contribution to social housing made, because of the small size of the serviced urban plots and lack of affordability for low- and middle-income groups	984 housing units for low-income groups have been constructed by TOKI	No direct contribution to social housing made, because of the small size of the serviced urban plots and lack of affordability for low- and middle-income groups	• The percentage of social housing is not defined • Construction of 664 housing units under the squatter transformation project (as social housing) have been tendered by TOKI and construction works completed to a great extent • Social housing was also built in Bezirganbahçe Housing Area
Infrastructure and service area availability	Low	Medium	Low	High

Source : S.Turk 2011

The aims of the Şeyhli project were attained. As can be seen in the case review, the number of serviced urban plots increased, which meant an increase in the number of residences. Development of the land by different landowners as per the plan was essential here. Average plot size decreased and the joint ownership structure was improved. This translated into improved marketability in the legal market as well as affordability for low- and middle-income groups. The project provided for the conversion of cadastral parcels into serviced urban plots in regular forms and sizes. It also supplied public service areas such as roads and parks for public use. In particular, because it produced serviced urban plots with separate ownership, land ownership problems were resolved.

The Aydınlı project also attained its objectives. Urban plots suitable for the construction of as-large-as-possible housing estates were produced and average-sized serviced urban plots increased. The number of owners of serviced urban plots did not change. With the production of serviced urban plots of a larger size, the land development process changed. During the land development process, the production of residences by TOKI, public-private partnerships, developers or cooperatives is intended, instead of land development with different landowners. The plots used as croplands prior to the project were not suitable for urban use in terms of their dimensions. Large plots suitable for urban use were produced and one of the main landowners in the project areas is TOKI. In 2008, TOKI started to construct houses for low-income

groups in the area. So far, 984 housing units have been constructed. However, the construction of service areas and infrastructure is still not finished.

The aims of the Dolayoba project were attained. Illegal subdivisions and buildings on the plots were legitimized and the number of serviced urban plots increased, which means an increase in the number of residences. The sizes of the plots decreased and the joint ownership structure was improved. This increased the marketability of the plots in the legal market.

As the plan was based on the *de facto* situation, public service areas were kept to a minimum. Therefore, the quantity of public service areas in the project area remained below standard, a situation which has been improved to a certain extent by the land readjustment. The plot structure, which was irregular prior to the project, was corrected and problems originating from illegal subdivisions have been eliminated.

The Ayazma project supplied serviced urban plots suitable for mass housing areas. Instead of land development by different landowners, residential development was achieved by the public, public-private partnerships, developers or cooperatives. Large-scale housing projects may be realized in the area. Accordingly, 6,600 residences are planned for construction in the entire project area; construction of 664 residences under the squatter transformation project (as social housing) was tendered by TOKI and work is largely complete. Also, 3,148 housing units are being produced under a "revenue sharing agreement" between Emlak Konut, a subsidiary of TOKI, and a private company. Those residences are intended for medium- and high-income level groups.

Relocation of most landowners to the area after the project has been important in terms of maintaining the social mixing of the area, as well as reducing the likelihood that the area will become dominated by high-income groups only. However, it should be noted that the relocation of landowners into the area after projects does not always guarantee their 'social mix' sustainability as social housing is rarely given priority.

05 LESSONS LEARNT AND RECOMMENDATIONS

The case study experiences, combined with an overall analysis of land readjustment processes and outcomes in Turkey, have provided an opportunity to reflect on how land readjustment might be improved in the Turkish context. While the case studies demonstrate some success in using land readjustment to create serviced urban plots and public service areas, and to remove land ownership issues, they also highlight areas for improvement. This section outlines lessons learnt and gives practical recommendations for improving land readjustment in the Turkish context, all of which have broader applications for other developing countries looking to streamline their land readjustment processes.

5.1 LESSONS LEARNT

There is a long tradition of land readjustment in Turkey despite a fragmented set of legal arrangements and the struggle of municipal authorities to implement infrastructure components. Land readjustment has often been used for the conversion of agricultural or semi-urban land at the urban fringe into urban land, and in new development areas of cities. In particular, it has been used to upgrade existing illegal housing areas or to regularize land tenure, and for renewal of irregular and informal settlements.

This report examines case study areas within the larger Istanbul urban area, and presents results from in-depth interviews with experts from the legal, survey engineering, and urban planning fields. The four case studies comprise the Şeyhli project, where land readjustment was used in a partly new development area of the city; the Aydınlı project, where land readjustment was used in a new development area; the Dolayoba project, where land readjustment was used to upgrade existing illegal housing and to achieve the regularization of land tenure; and the Ayazma project, where land readjustment was used in the renewal of irregular and informal settlements.

The case studies demonstrate some success in using land readjustment to create serviced urban plots, public service areas and remove land ownership issues. For example, over the four projects, at total of 606 cadastral parcels were converted to 1,283 service urban plots, and in the Şeyhli project, the average number of owners per plot fell from 6.25 to 3.36. However, the

case studies and analyses also highlight a range of challenges facing land readjustment in the Turkish context.

LEGAL COMPLICATIONS

Land assembly in the land development process in Turkey is realized in two ways. The first is state intervention through land acquisition methods such as expropriation or land readjustment. The state has the power to expropriate lands owned by individuals or legal representatives where the public interest so requires. The threat of expropriation is frequently used as a bargaining chip to force agreements with landowners. The second method is through purchases according to the suitability of some aims by the state (central and local government), private developers, etc. Purchases are carried out within the framework of private law principles and market mechanisms.

The legal framework complicates some land readjustment processes in Turkey. Article 18 of Reconstruction Law No. 3194 forms the legal basis for projects, but other laws also contain relevant clauses. This dispersed legal approach, combined with some deficiencies in the existing statute and limited legal frameworks around community participation, mean that projects encounter legal and practical problems. For example, Article 18 of Reconstruction Law No. 3194 is built around an area-based approach: that is, contributions and benefits are determined in terms of land area and not land value. This makes land readjustment more successful in new urban developing areas or relatively homogenous areas than in completely or partially built-up areas. There is also no knowledge related to the results when a land readjustment project is annulled by the administrative courts.

EXPROPRIATION

Despite its clear shortcomings and modifications made to the expropriation laws, expropriation remains prevalent in land readjustment. The report shows how expropriation is driven by the complexities regarding the maximum contribution percentage in land readjustment. In land readjustment projects, this percentage is defined as 40 per cent and is taken from each landowner without any compensation. If the contribution percentage is more than 40 per cent of the land readjustment area, the municipalities have to pay compensation. In practice, municipalities do not want to exceed the maximum contribution percentage as they often do not have the financial resources for compensation.

Landowners are therefore offered two options. The first is to be given a housing unit (or units) after the project in return for the value of their land/property. The second option is to have the land/property purchased by the municipality, TOKI or the developer of the land/property. If an agreement cannot be reached, the municipality has the authority to expropriate. However, imputed value, not future use, determines compensation and the resettlement costs are not included in the compensation for the expropriation.

In some cases, expropriation can result in the unjust treatment of landowners and tenants as the projects end up catering for middle- and high-end income groups and do not provide social housing. Although many cases are based on public-private partnerships, and the cost recovery is factored in even to the upgrading of informal settlements, in most instances the protection of social capital and social mixing cannot be provided.

SOCIAL HOUSING

Many social housing efforts attached to land readjustment processes in Turkey suffer due to lack of funding and because housing is traditionally considered a private-sector function. Social housing is usually provided via a land readjustment process in three ways: by increasing the contribution percentage within the land readjustment process; by considering social housing as a functional area in a local physical plan; and by central government institutions for social housing entering land readjustment projects as a landowner (the Aydınlı case is an example of this).

Traditionally, social housing has not been considered an important outcome of land readjustment projects, and the contribution percentage taken from each landowner within the project area, for example, is not considered as something that goes towards social housing. Also, social housing is not defined in public service areas provided by expropriation within land readjustment. Any notion of mass housing, usually undertaken via expropriation methods, exists under the central government unit as part of their planning agenda and not at the local level.

The lack of social housing, combined with many urban renewal projects targeting high-income groups, means that original landowners who participate in projects cannot remain in the area as prices rise. This was noted in several of the case studies.

CONTRIBUTION PERCENTAGES

A further issue is that the contribution percentage for public services is determined in land readjustment projects in Turkey, which impacts on the final provision of community infrastructure. In the distribution stage of the land readjustment project, all landowners become joint owners in parcels that have been designated for public-use facilities based on their cadastral plot ratios. However, construction on the land is not included in the land readjustment process, since these duties are essentially assigned to the responsible municipalities. So while public service areas are provided by the contribution percentage, usually the respective public authority (local government units and central government units) is forced to undertake construction as part of their own internal budgets. Most lack the necessary finances and have not been able to capitalize on land-value gains, so the infrastructure construction does not occur.

LAND DISTRIBUTION

The distribution stage is the most problematic stage in the application of land readjustment in Turkey. The limited intervention into cadastral ownership status in readjustment, the removal of differences in the form of land in the distribution stage, the risk that landowners may lose their land, and the availability of subjective valuations in the distribution stage have caused landowners to have prejudices against the land readjustment method.

According to Turk (2004), 67.3 per cent of municipalities surveyed said landowners seem to be prejudiced. According to 83 per cent of these municipalities, one reason for the prejudice is that landowners believe "they will be given property other than their cadastral plots following the land readjustment process". The survey showed that 70.3 per cent of landowners believe that, after the readjustment, "the urban plot given would be a shared one".

Opposition appears more intense at the distribution stage. According to the survey, in 74.6 per cent of municipalities landowners objected to land readjustments because "they are not pleased with the location of the urban plot obtained " or " the plot given is shared with others". Such attitudes to projects can play an important part in failures (Turk, 2004b).

A specific problem is created when the area of the plot granted to the owner following the readjustment process is smaller than a normal urban plot, according to detailed local plans. This can create numerous jointly owned plots, causing landowners to share with strangers. Landowners can reach agreement to resolve joint ownership issues. However, in cases where disagreements continue, Article 16 of the Reconstruction Law allows municipalities to file charges against owners if an agreement is not reached within six months. However, municipalities often do not exercise this authority and usually the joint ownerships continue (Turk, 2005; 2007).

When legal proceedings are started in order to eliminate joint ownership, the joint owner with stronger economic power may have the chance to purchase the entire urban plot – which potentially disadvantages poorer landowners. Furthermore, other people may have the opportunity to purchase this urban plot. This means some landowners risk losing their plots at the end of the process.

LAND ACQUISITION

Another challenge is the method of land acquisition, which is considered less than ideal. Many municipalities use the voluntary method in their land development process. In the implementation of the voluntary method, the reduction is not determined by a certain ratio, but according to the requirements of the detailed local plans. Therefore, the contribution percentage of each plot to the lands allocated for public service areas is different. This causes loss of income for landowners and sometimes leads to injustices in the overall plan.

At the same time, several factors have facilitated the use of the voluntary method as an alternative to the land readjustment process, such as lower costs for municipalities, its quick implementation, its implementation at the request of landowners, the easy transfer of service areas for public use, the greater effectiveness of landowners in the process, and the low rate of litigation.

PLANNING ISSUES

In general, many land readjustment projects are not linked with broader municipal plans. Many local governments do not have access to these plans and there are no legal sanctions against municipalities that do not prepare their implementation programmes – even though municipalities are required to prepare a five-year implementation programme within three months of the development plans going into effect.

As a result, there is often no link between the determination of the readjustment areas and the detailed local plans. There is also a lack of criteria in urban areas, as a whole, by which land and its size could be evaluated for the realization of land readjustment projects. A further complicating factor is that the plan decisions are usually based on the *de facto* situation, so public service areas are kept at a minimum. This type of land readjustment can produce controversial and unfair results for the whole city. One of these is that the quality of the urban environment after this type of land readjustment is low when compared to areas constituted under legal processes. Another problematic result is that it legalizes both illegal subdivisions and buildings on plots that have no construction permits. Legalization policies have therefore also tended to encourage haphazard urban sprawl on public and private land, without any provision for social or infrastructure services.

LIMITATIONS OF THE CADASTRAL RECORDS

Planning is complicated by limitations in the current cadastral records in Turkey. While figures show that cadastral coverage is high, there are problems related to different surveying methods and coordinate systems (Sarı and Demirel, 2007). Old measuring instruments have created many inaccurate boundary records and thus compound capacity to develop clear and concise plans.

LIMITED MUNICIPAL CAPACITY

Lack of municipal capacity is a key element that emerges in the report. In Turkey, the large number of municipalities with small populations, the insufficient number of technical personnel in such municipalities, and the lack of financial resources all have a direct influence on the preferences of municipalities and in how land readjustment is carried out.

According to 1990 data, 24 per cent of municipalities did not have any technical personnel and 42.3 per cent had only one technical person (Yurtsever, 1990). According to Turk's findings (2003), 53 per cent of municipalities had less than two technical people. These figures show that there has not been a rapid improvement in technical capacity.

At the same time, the technical people in these municipalities may not have the necessary knowledge and skills to solve problems or understand the laws and regulations in connection with planning.

LIMITED PUBLIC PARTICIPATION

The report describes a lack of public participation in land readjustment projects in Turkey.

For example, decisions can be made by administrative units or a contractor who conducts the application on behalf of the administration. In general, the design of urban parcels within building blocks is not shown in detailed local plans. The design can be carried out by adopting minimum and maximum frontal and depth measurements within the detailed local plan decisions and general building regulations. The choice of dimensions between minimum and maximum measurements is left to the contractor, who conducts the application on behalf of the administration without the consent of the landowners in the land readjustment area (Turk and Turk, 2006).

There is no legal mandate for community engagement and no organization to explain the project to the landowners, to describe how the alternatives are assessed or to go to for advice during or after the land readjustment process. There is also no process that supports the participation or engagement of vulnerable groups (low socio-economic, single parent households).

This lack of focus on the people has undermined the capacity of many land readjustment projects to facilitate urban equity in land and housing. While there are some examples of benefits to low-income communities in the case studies, it is clear that these benefits are sometimes ad-hoc or individual outcomes rather than an inherent part of the Turkish land readjustment approach.

GOVERNANCE ARRANGEMENTS

The concentration of voters in land readjustment areas brings political concerns into decision-making. This is especially so in small cities because landowner prejudice and the high numbers of people living in a project area can affect election results (Çete, 2010; Yomralioglu et al., 1996).

According to Turk's survey results (2004), the majority of municipalities (67.3 per cent) stated that landowners are prejudiced against land readjustment processes.

Such prejudice against projects, and negative attitudes towards municipal administrations, can be important reasons for their failure (Turk, 2004b).

Several experts agreed that municipalities prefer to use a voluntary approach rather than land readjustment as part of the political concerns; however, the voluntary method in urban areas can cause inequality as there are significant differences in the amount of land landowners need to contribute for public use.

5.2 RECOMMENDATIONS FOR IMPROVING LAND READJUSTMENT IN TURKEY

While significant challenges are outlined in the report, it also lays out a roadmap for improving land readjustment in Turkey, providing specific recommendations in the areas outlined below:

LEGISLATION

- In Turkey, legal sources related to land readjustment that are dispersed should be collected under a basic land readjustment law. This law can include all different uses of land readjustment and clarify and simplify the legal process.

- Besides the standard land readjustment method, other models based on the voluntary principle initiated directly by landowners should be included in the system, along with simple land readjustment for the purpose of the implementation of detailed local municipal plans. In this way, the voluntary land readjustment approach can be encouraged by the municipalities and perhaps more easily implemented by them.

- In built-up areas where readjustment contribution percentages cannot be achieved in terms of land, the share should be provided in cash. While Article 18 of Reconstruction Law No. 3194 does not stipulate such a provision, Article 10-c of Amnesty Law No. 2981/3290 shows that adjustments in the distribution stage can be provided in cash. This provision should be included in Article 18 of Reconstruction Law No. 3194.

- While it is possible to transform plots established by land readjustment in urban areas into a proper structure, the same transformation should also be provided in terms of ownership structure. To this end, the conversion of joint ownerships into separate ones should be provided in land readjustment projects. As above, while Article 18 of Reconstruction Law No. 3194 does not stipulate such a provision, Article 10-c of Amnesty Law No. 2981/3290 does. This provision should be included in Article 18 of Reconstruction Law No. 3194.

- Land readjustment project areas should be directly integrated with planning. To this end, municipal implementation programs and detailed local plans should be enforced simultaneously. When municipal plans are prepared, the possible land readjustment project areas can be determined. Thus, the contribution percentages can be defined for each land readjustment project thus reducing the possibility of inequalities arising from greatly varying contribution percentages.

- Sanctions should be introduced in the Reconstruction Law No. 3194 in cases where municipalities do not have implementation programmes in conjunction with detailed local plans.

FINANCE

- Infrastructure and construction costs should be factored into land readjustment projects in all cases.

- A solution should be found to supply low-interest loans from banks or private organizations during the process, and repayment modalities should be determined. A "Development Plan Implementation Fund" should be established for project expenses and probable expropriation payments, and this fund should be financed from charges related to the implementation of detailed local plans and from allowances transferred to municipalities from state budgets.

- The land readjustment method has been often used in new development areas of Turkish cities. To apply this method for the conversion of agricultural or semi-urban land at the urban fringe into urban land is easy; however, there is a problem in built-up areas. The land management system should be reformed to reduce the confusion caused by joint ownerships and a value-based approach in built-up areas.

- To improve the legal nature of title allocation documents in informal settlements upgrading, the current system of giving illegal titles must be changed. To transform the allocation into legally binding titles, development plans for improvement must be made. These plans include the unification of irregular, haphazardly formed parcels and their redesign to create new parcels of maximum 400 m^2, to allow the construction of four-storey apartment houses. The implementation of improvement development plans is provided by a special land readjustment method, which is applied in accordance with Article 10-c of Amnesty Law No. 2981/3290, the main target of which is to obtain independent parcels. The significant difference of land readjustment in accordance with Law No. 2981/3290 and land readjustment in accordance with Reconstruction Law No. 3194 is that joint ownership can be converted to separate ownership during the distribution phase. In the distribution stage, adjustments can be made in cash, not in the form of area which is also a bonus.

PLANNING

- The urban planning process and land readjustment projects should be more integrated. Municipal implementation programmes and detailed local plans should go into effect simultaneously. Implementation programmes state the order of precedence of land readjustment projects within whole plan area and can be implemented in stages. The stages in these programmes should be defined.

- The areas of land readjustment projects in each stage should be designated at the time of the preparation of the detailed municipal local plans. The land contribution ratios for areas involved in readjustment should be calculated. The boundaries of areas designated for readjustment should become final by the approval of the detailed municipal local plan. In the implementation of land readjustment projects, any contribution percentages should also be taken into consideration. If these steps are followed and part of the formal municipal planning process, it is more likely that the land readjustment process will take place as it can be planned and accounted for.

- In order to better finance any social housing components of land readjustment projects, there are three possible choices: increase the contribution percentage within the land readjustment process, consider social housing as a functional area in the local physical plan, and involve TOKI as a landowner. In 2008, TOKI was given authority to make land readjustment at places in the renewal of irregular and informal settlements, in areas where ownership belongs to it and mass housing areas. With this authority, TOKI can enter land readjustment projects as a landowner and provide land for social housing. The Aydınlı project is an example of this type of provision. However, the percentage of social housing should be defined by municipalities for each settlement.

CAPACITY DEVELOPMENT AND TRAINING

- With the capacity of municipal governments varying so much in Turkey, care must be taken as to which one has the skills and resources to successfully implement a land readjustment project. It might be best that land readjustment projects are only implemented by large municipalities that have high population growth and change in urban areas. Small municipalities (populations under 50,000, the majority in Turkey) often struggle to have the capacity to implement land readjustment projects from start to finish. Furthermore, in order to increase the capacity and likelihood of projects being implemented, a simple land readjustment and voluntary land readjustment model should be added to the system in addition to the standard land readjustment method to increase the implementation success rate.

- The precision of the data coming from the land register system, one of the most important inputs in land readjustments in Turkey, should be improved. Legal adjustments must be made to make cadastral maps and detailed local plans made compatible.

- In the process of land readjustment, levels of proficiency and competence should be defined for surveyors who take over projects to ensure there is a clear understanding of what is required and the suitable professional hired to undertake the task

- In many municipalities in Turkey, both the number and the qualification of technical personnel should be improved. Training on land readjustment should be provided at a national level to enhance the quality of technical personnel employed in municipalities.

- Municipalities should present successful land readjustment applications to the public so there is a building of the public's capacity to understand the personal and broader community value of land readjustment projects. This might help reduce people's reluctance to take part in such projects.

- There should be a common platform for municipal governments to share experiences gained through land readjustment projects so that skill levels and knowledge can be improved and a professional support network formed.

GOVERNANCE

- Public participation in land readjustment projects should be improved in the Turkish context. Land owners should be informed at different stages of projects and those non-landowners in the community who might be affected also brought into a participatory process to reduce the risk of displacement. By including a broad range of stakeholders, the annulment of projects by the administrative courts might be reduced and any displacement of vulnerable groups and individuals also reduced.

- Communication to the general public about land readjustment projects should also be improved. A public notification should be made at the beginning of the land readjustment process, related to matters such as the areas where applications are made corresponding to the related plots, limits and size of the land. The preliminary sketch document should be presented to the public after the urban plot is formed and distributed. It is essential to have the support of the landowners and their consensus at all stages of the land readjustment process. During the land readjustment process and especially at the formation and distribution stages of urban plots, this will have a direct impact on the success of the project. Such action will not only serve to inform those directly affected by the project but also serve as a way of building the capacity of the general public around what is involved in a land readjustment exercise.

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ANNEX

ANNEX

INTERVIEWEES

1. Celil TURK, M. Sc. Surveying engineer, 16 January, 2012
2. Prof. Dr. Tahsin YOMRALIOĞLU, Surveying engineer, 11 January, 2012
1. Prof. Dr. Erol KOKTURK, Surveying engineer, 13 January, 2012
4. Prof. Dr. Enver ULGER, Surveying engineer, 17 January, 2012
5. Cemal ISLEYICI, Msc. Surveying engineer, 16 January, 2012
6. Prof. Dr. Yücal UNAL, Legal expert and urban planner, 24 January, 2012
7. Prof. Dr. İbrahim BAZ, Surveying engineer, 10 January, 2012
8. Prof. Dr. Halil KALABALIK, Legal expert, 7 March, 2012
9. Assistant Prof. Dr. Mehmet Çağlar MEŞHUR, Urban planner, 10 March, 2012
10. Prof. Dr. Mehmet OCAKÇI, Architect and urban planner, 22 March, 2012

Question 1: What are the main difficulties in implementing land readjustment projects in Turkey?	
First interviewee	• Article 18 of the Reconstruction Law No. 3194 does not involve all issues to guide land readjustment practice in Turkey. • There are insufficient detailed local plans, which negatively affects projects. • There are problems with land registration - title information is not up to date. • Qualification and competence conditions are not defined in the legal sources for someone who is undertaking land readjustment projects. For example, a surveyor who just graduated from university can make land readjustment projects. However, land readjustment projects require specialization. • Land readjustment projects can be considered as the revision of land registration. However, this is not taken into consideration sufficiently.
Second interviewee	• There is no value-based land readjustment. • There are insufficiencies related to the legislation of land readjustment. There is no sanction if the municipalities do not prepare the implementation programme, although the municipalities are required to prepare a five-year implementation programme within three months after the development plans go into effect in order to be able to implement these plans. The determination of readjustment areas in order to apply the detailed local plans, and setting the limits of such areas, is a matter completely left to municipalities. There is a lack of rules in the determination of land readjustment areas the in the whole of the city. • There are problems in the capacity of management related to land readjustment. • The technical personnel capacity of municipalities is insufficient. • Municipalities cannot be forced to make land readjustment projects. Therefore, the implementation of land readjustment projects depends on their decisions. • There is a political concern in the municipalities during the decision related to the making of the land readjustment projects. • There is no technical standard for someone who undertakes land readjustment projects.
Third interviewee	• Municipalities as political institutions have a negative perception of land readjustment projects. They are prejudiced. They think that land readjustment intervenes in their ownership rights. They oppose the contribution percentage. They believe that a different place will be given or serviced urban plots in joint ownership will be given after land readjustment. • There is a financial problem in the implementation of land readjustment projects. • Local governments do not have enough capacity to apply land readjustment projects. • There are some technical problems because of the quality problem related to cadastral works that directly affects land readjustment projects negatively.
Fourth interviewee	• Land-based land readjustment is problematic because the value of plots determined before and after the land readjustment are not taken into consideration. The value-based approach should be applied. Especially in built up areas, land-based approaches can be problematic because contribution percentage cannot be taken. • There is a problem related to the determination of land readjustment project areas and its size. • Each land readjustment project has a different contribution percentage. The differences in contribution percentage can create unfairness in the whole of urban areas.

Fifth interviewee	• Landowners have prejudices towards land readjustment processes. The landowners oppose two basic points in the process of a land readjustment project. The first point is related to the land deduction made in order to recover the technical and social infrastructure and the amount of this deduction. The second is related to distribution. • Insufficiencies in the preparation of detailed local plans and the plan changes affect land readjustment projects negatively. • Local governments pay attention to the political issues not public interest and ownership rights. • There is no cooperation between the surveying engineers and the urban planners. • There can be mistakes in the evaluations by legal experts on cases related to land readjustment in the administrative courts. • In Turkey, firstly buildings are constructed, then land readjustment projects are implemented and the serviced urban plots are produced. Not as it should be. • Municipalities prefer to use the voluntary method over land readjustment. However, the implementation of voluntary method in urban areas causes inequality. • There are no technical personnel that have enough knowledge and experience in the municipalities. • The annulment of land readjustment projects by the administrative courts cause problems.
Sixth interviewee	• There are insufficiencies related to the land readjustment legal system. • There is not enough capacity in management. • There are insufficiencies in the number of technical personnel in municipalities. • There is no standard for someone undertaking land readjustment projects.
Seventh interviewee	• Annulment decisions of land readjustment projects by the administrative courts cause problems. • Evaluations by legal experts in cases related to the annulment of land readjustment projects are problematic. • Municipalities hesitate over the implementation of land readjustment projects because they think that land readjustment projects could be annulled by the administrative courts.
Eighth interviewee	• The determination of land readjustment project areas is problematic. The determination of a land readjustment project is left to the municipality. The municipality decides which parcels are included in land readjustment projects. • The municipalities do not create implementation programmes, although it is stated in 10th title of Reconstruction Law. • In the determination of land readjustment project areas the overall direction of the city is not taken into consideration. • The significance of the contribution percentage is not understood by the municipalities. • Sometimes, a second land readjustment project in the same area can be applied without any reason. That is, municipalities can behave arbitrarily in the implementation of land readjustment projects.
Ninth interviewee	• There is no equitable sharing of value in Turkey. Within a land readjustment project area, the same contribution percentage is applied to each landowner. However, providing this equity properly in an area-based land readjustment project is not straightforward, because each building block can have different characteristics, affecting value. • There is not enough conscious thought related to land readjustment. Landowners are prejudiced against land readjustment. They see the land readjustment method as an intervention into their ownerships rights. • Land readjustment projects can be made at the size of a single residential block. This prevents the implementation of detailed local plans in a holistic way. • After land readjustment, the production of small parcels limits the architectural design.

Tenth interviewee	• In Turkey, participatory democracy is not developed. • In urban planning processes, public participation is not sufficient. • Landowners do not believe there are equitable implementations in urban areas. • There is a tendency to look at urban land as a tool of urban rent. • The municipalities prefer to use the voluntary method instead of land readjustment. • Urban planners also prefer to use the voluntary method because of its easiness. • The municipalities do not allocate financial sources for land readjustment projects.

Question 2: Are legal sources related to land readjustment enough to solve the problems in Turkey?	
First interviewee	• Not enough. There is a lack of general legislation based on only land readjustment. Currently, the basic legal framework of land readjustment projects is regulated only by one title within Reconstruction Law No. 3194. This is not enough. A more comprehensive and new legal regulation related to land readjustment is needed.
Second interviewee	• Not enough. A value-based land readjustment is needed. The current system is not value-based. • The construction of infrastructure and service areas is not included in Turkey. • There is no need for a new law. However, the existing law should be revised.
Third interviewee	• Not enough. There is no public participation mechanism in the process. • Construction of infrastructure is not included into the process. • There is a lack of definition related to the serviced urban plot. • The revision of title 18 of the Development Law No. 3194 is needed.
Fourth interviewee	• Not enough. A new law should be prepared. • Urban renewal should also be added to the new law. • Value-based land readjustment should be introduced.
Fifth interviewee	• Enough. However, an annotation in the law is needed, on the subjects related to public service areas supplied by the contribution percentage, and public service areas supplied by expropriation.
Sixth interviewee	• Not enough. A new law should be prepared. • Value-based land readjustment should be introduced.
Seventh interviewee	• Not enough. There should be regulations related to problems and their solutions after the annulment of land readjustment projects in the law. • The concept of public interest is not clear. It should be clear.
Eighth interviewee	• Not enough. There are some uncertain points in legal sources in land readjustment. For example, the condition related to closed roads in the land readjustment area is not defined in the Reconstruction Law. There have been attempts to have this removed by administrative court decisions.
Ninth interviewee	• Not enough. This can arise from the regulation related to land readjustment.
Tenth interviewee	• Although, initially, legal sources seem enough, there are problems in practice. The value-based approach can be useful instead of the land-based approach in the distribution stage.

Question 3: Are the contributions of land readjustment projects to the supply of infrastructure and urban service areas enough? In this sense, can "equity", "effectiveness" and "sustainability" principles be provided?	
First interviewee	Enough. It cannot be provided. I think that the main reason for this is that each land readjustment project has a different contribution percentage depending on land readjustment area size and the amount of land used for public services within land readjustment projects. Development rights should be included in the system.
Second interviewee	There is a problem in the determination of the land readjustment project area. The local physical plan cannot be implemented in a holistic way in urban areas. Each land readjustment project has a different contribution percentage, which creates inequality throughout the urban area.
Third interviewee	Not enough. The construction of infrastructure is not included in the process. Land-based land readjustment is not equitable. The sharing of infrastructure is insufficient. Low- and middle-income groups are not able to benefit from the results of land readjustment projects.
Fourth interviewee	Not enough. The construction of infrastructure should be included in the process. There is a problem in sustainability. With land readjustment projects, infrastructure and service areas are provided. However, after land readjustment, plan changes can be made in project areas. Plan changes mostly include function changes and increasing building heights. This time, the need for infrastructure and urban services areas increases much more than before. A control system as independent from political authority as possible should be brought after land readjustment projects.
Fifth interviewee	When the Reconstruction Law No. 3194 came into force in 1985, the scope in supply of infrastructure and urban service areas was enough. However, the scope has become insufficient for the changing conditions and changes in the law. In 2003, primary and secondary education areas were added to the contribution percentage. I think that the secondary education area should be excluded from the law. Instead of this, health clinics should be added.
Sixth interviewee	Not enough. It cannot be provided. In particular, there is a problem related to the determination of land readjustment project areas. The contribution percentage in the whole of the urban area is not taken into consideration. Although generally land readjustment is a method with justice, the reallocation process may cause unjust results.
Seventh interviewee	The contribution percentage (40 per cent) seems enough in a standard application. However, when large infrastructure and urban service areas are included to the land readjustment project, the percentage can be insufficient. Therefore, the expropriation costs can arise. That is, if the contribution percentage is more than 40 per cent in the land readjustment area, the municipalities have to expropriate this difference. In determining the infrastructure and public service areas and their size, both urban development and population needs should be taken into consideration. There is a problem related to standards with the infrastructure and urban service areas. For example, Tuzla (Istanbul) has an urban texture with detached houses. When green areas according to the detailed local plan are implemented and these areas are acquired by land readjustment projects, these areas can be surplus to requirements. In contrast, Maslak (Istanbul) has a high density.
Eighth interviewee	Not enough. Municipalities prefer to use the voluntary method. Also, land readjustment projects can be made the size of a single residential block. This prevents land readjustment projects contributing to the supply of infrastructure and public urban service areas. Therefore, public urban service areas like green spaces cannot be acquired by the public via land readjustment projects.

Ninth interviewee	In Turkey, the acquisition of public urban service areas is obtained by the contribution percentage and public service areas are obtained by expropriation within the land readjustment process. This works well. Land readjustment projects easily implement detailed local plans. Therefore, it can be said that the "effectiveness" principle is provided. However, it is difficult to say that "equity" and "sustainability" principles are provided because of the different contribution percentage, and because the production of small parcels limits the architectural design.
Tenth interviewee	When the other methods are compared in the sense of "equity" principles, the land readjustment method is more equitable than the others (voluntary method and expropriation). However, land readjustment cannot be used in effective ways, despite its equitable feature.

Question 4: Is there any contribution by land readjustment projects to social housing in Turkey? If not, is it possible?	
First interviewee	First of all, a definition of social housing is needed. In Turkey, there is no exact definition of social housing. Because land readjustment projects are land-based in Turkey, these projects serve self-help housing. After the implementation of the projects, the housing will be different on 400 m2 and 100 m2 service urban plots. At this point, the state should give support to people who have small parcels and want to build on them.
Second interviewee	There is no direct contribution to social housing. I think that social housing should be defined as a functional area in the detailed local plan. In this way, when the detailed local plan is implemented by land readjustment projects, social housing can be provided.
Third interviewee	There is no direct contribution to social housing. Each municipality should define how much social housing will be within its own housing stock. The percentage for this can be 30 or 40. By this determination, land readjustment projects should be implemented.
Fourth interviewee	I think that social housing should be considered within land readjustment projects. Also, the contribution to social housing should be considered within urban renewal process.
Fifth interviewee	Mass housing areas to be created by TOKI are determined in the detailed local plans. These areas are used for social housing.
Sixth interviewee	In the current situation, there is no contribution to social housing in land readjustment projects. Social housing can be considered in two ways. Firstly, the contribution percentage can be increased; secondly social housing can be considered as a functional area in detailed local plan.
Seventh interviewee	Currently social housing is not taken into consideration. However, some regulations can be made. For example, the percentage can be defined like the contribution percentage for public service areas in the law.
Eighth interviewee	There is no direct contribution to social housing. However, it can be considered. First of all, social housing as a functional area should be defined.
Ninth interviewee	There is no contribution for social housing, but social housing can be provided legally. Besides, in the voluntary method, landowners can cede some part of their land to the municipality. Sometimes, lands that are ceded can be much higher than the contribution percentage in the land readjustment process. Municipalities can sell the lands to provide income. For this, a legal basis should be established.
Tenth interviewee	In land readjustment projects, the contribution percentage can be increased from 40 to 45. This increase can be used for social housing. First of all, urban poor should be defined legally.

Question 5: Which lessons can be derived from the Turkish land readjustment experience for other developing countries?	
First interviewee	• Turkish land readjustment is successful in terms of the production of serviced urban plots. • Also, the acquisition of infrastructure and urban service areas is successful. • In practice, the use of land readjustment is common, but limitations should be removed.
Second interviewee	• Land readjustment by public power is quick. • Land readjustment has important benefits in favour of public. • There is a lack of public participation. • The municipalities cannot generally coordinate the timing of infrastructure construction and land readjustment projects with the aftermath of land readjustment.
Third interviewee	• Amnesty Laws No. 2981/3290 has lessened justice in the urban areas. Especially, metropolitan areas have been negatively affected by amnesty laws. Legalization does not prevent new illegal settlement formations. Legalization policies have also tended to encourage haphazard urban sprawl on public and private land, without any provision for social or infrastructure services. • The current status of land readjustment does not get equitable results.
Fourth interviewee	• The applicability of the land readjustment method is high in new developing areas with the current status. • New regulations should be made for the applicability of land readjustment in high density. Value-based land readjustment is needed.
Fifth interviewee	• Value-based land readjustment is needed. • A definition related to serviced land plots should be added to legal sources. • There are some uncertain points in the process related to the scope of contribution percentage. These should be removed. • Land readjustment project areas and their size should be designed in the local physical plans. • Public awareness should be provided in land readjustment projects. • There should be defined qualification and competence conditions for undertaking land readjustment projects.
Sixth interviewee	• Value-based land readjustment is needed. • Land readjustment project areas and their size should be designed in the local physical plans. • There is a lack of public participation. • Public awareness should be provided in land readjustment projects.
Seventh interviewee	• Value-based land readjustment is needed. • Development rights should be taken into consideration in the land readjustment process. At present, development rights are not taken into consideration, especially in the distribution stage.
Eighth interviewee	• Municipalities should prepare implementation programmes and priorities should be determined. When municipalities do not prepare their implementation programmes, sanctions should defined in the law. It is defined in the law how public service areas like green area, car park, elementary education areas, etc. will be used. The determination of land readjustment areas should be given attention. Plan changes after land readjustment should not be made unless there is compelling reason.
Ninth interviewee	• In sense of the acquisition of infrastructure and urban service areas, land readjustment works. In Turkey, land readjustment has developed technically.
Tenth interviewee	• Participatory processes are very important. • In Turkey, the acquisition of infrastructure and urban service areas is provided without financial sources of the public. • Land readjustment projects are important for the public interest, equality principle, and the supply of infrastructure and urban service areas. • Land readjustment projects should be implemented in the whole of the city. • The value-based approach can be useful.

URBAN LEGAL NETWORK (ULN)

The Urban Legal Network aims to become a leading global Network that promotes the exchange of urban legal knowledge in the field of urban development. ULN will be a global focal point for:

- Urban legal knowledge and idea exchange,
- Urban legislation best practice and tools, and,
- Urban legal partnerships and experts in the urban legislation field.

The Network is based on the belief that good urban legal knowledge and robust urban legislation are fundamental for developing innovative, inclusive and productive cities. Importantly, good urban legislation is vital for improving the lives of everyday people within cities and is thus fundamental to urban planning and development initiatives.

If decision makers, planners, organizations and citizens in cities have access to this knowledge in one spot, they can use and adapt this information to strengthen their specific urban contexts.

ULN is hosted by UN-Habitat facilitated Global Land Tool Network (GLTN) but reflects UN-Habitat's new mandate to enhance the role of urban legal knowledge and practice in the process of solving urban issues and building better urban futures. ULN will therefore be an ongoing project to improve knowledge, resources and partnerships in the urban legal field.

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