

Full Length Research Paper

Problems of land readjustment process in Turkey

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Land readjustment is a method providing alternative potentials for both its implementing authorities and the property owners. Thus, the consistency of the legal framework which determines the way of the method used is of great importance. However, how the method is applied in Turkey is considered problematic. The main problems in the method are; exclusion of property owners from the participative process, calculating the shares in terms of area instead of value, size and scale of readjusted land and that the professions not related to planning processes are given to the authority by legislations. This brings out both a problem of trust in the operations carried out for public interest and a problem of quality in the physical environments generated. Discussing the land readjustment method which is the most applied method in urban planning in Turkey with an emphasis on implementation and action dimensions is the main aim of this study. Hence, the study attempts to display the inadequacies of Turkish Planning Legislation in terms of land readjustment processes, evaluating the Article 18 of Law 3194 and the related legislation 'Regulations for Guiding the Land Readjustments according to the Article 18 of the Development Law'.

Key words: Physical plan, implementation of physical plan, land readjustment.

INTRODUCTION

All spatial, administrative, social and economic approaches to settlements are within the scope of urban planning. Thus, planning is a comprehensive concept since it encompasses a wide range of values. Owing to the changes in the societies, in time periods and accordingly changes in cities, 'planning' has served for varying meanings. Another key feature of planning is that it is a 'process'. In other words, urban planning is neither a simple action resulting in a product, nor a representation of a static situation in the future; rather, it has a dimension with the attempt to make the changes useful or beneficial.

The most important key to be emphasized in this 'process' is that the concept includes 'prospective' decisions, suggestions and measures and discusses the methods for 'implementation' of them. To put in another words, 'foreseeing' and 'implementation' are two main dimensions of the planning process (Yavuz et al., 1978). Under the light of these concepts, discussing the land readjustment method which is the most applied method in urban planning in Turkey with an emphasis on implemen-

tation and action dimensions is the main aim of this study. For this aim, the study attempts to display the inadequacies of Turkish Planning Legislation in terms of land readjustment processes, evaluating the Article 18 of Law 3194 and the related legislation 'Regulations for Guiding the Land Readjustments according to the Article 18 of the Development Law'.

Land readjustment

The main aim of the methods used in implementation process is the transformation of the cadastral parcels describing the ownership status of land into urban land where development becomes possible (Günay, 1997). For this transformation to occur a number of methods are recommended to provide the necessary conditions for the plan to be implemented.

Land readjustment is an important tool for converting land from rural to urban. Therefore, the most interesting and worth examining method among others is the Land Readjustment Method in legislations in Turkey. Although it has a legal framework going back many years, the process of land readjustment contains important problems (Turk, 2005). In other words, while providing

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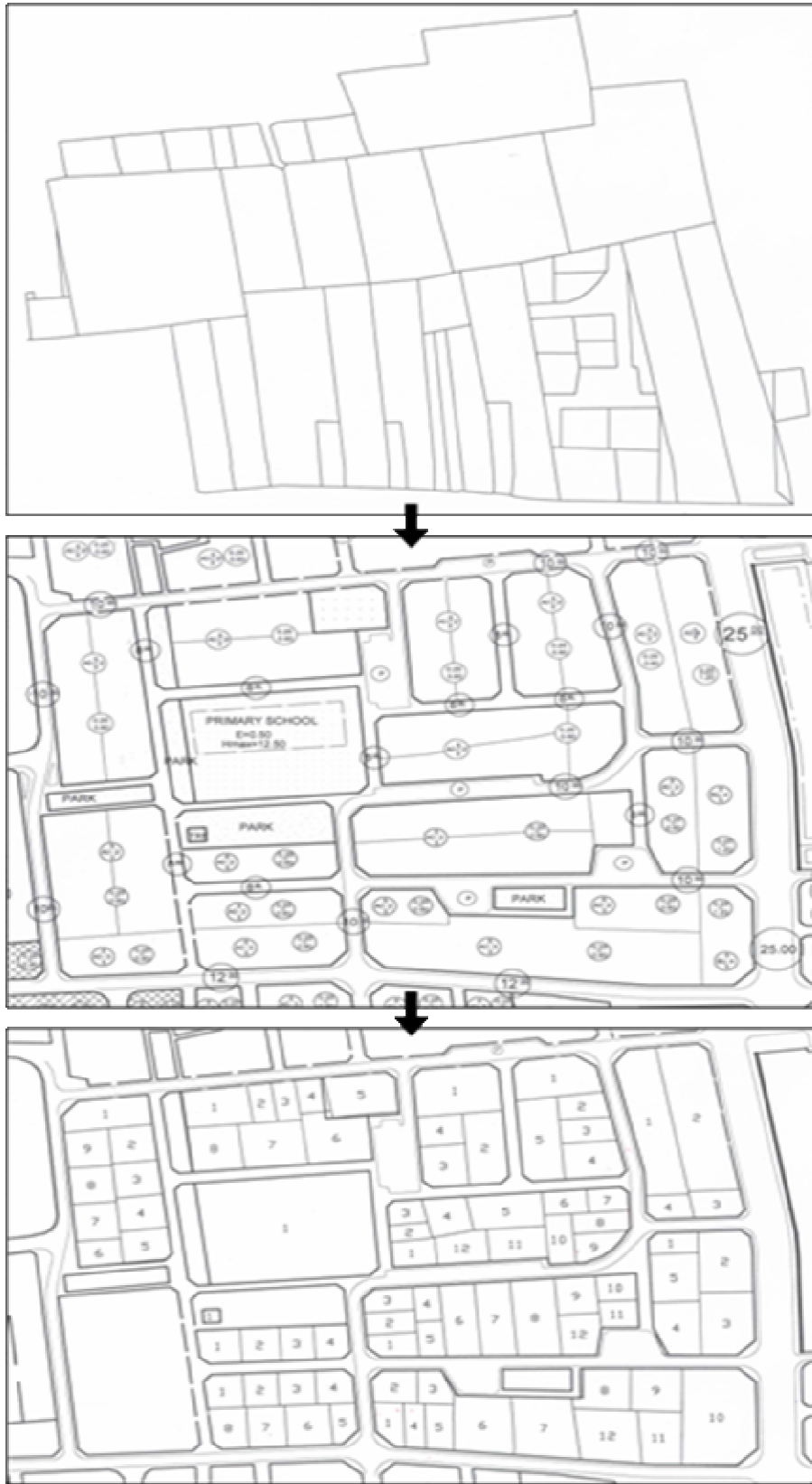


Figure 1. Land Readjustment; Transformation of Cadastral Parcels into Urban Land (Plot). Main items of land readjustment process; cadastral plan, local physical plan and allotment plan. Source: Karatay (Konya) Municipality, 2009.

new possibilities for property owners and implementing authorities (Yomralio lu, 1994), also results in impossible to compensate problems due to institutional inadequacies

In the land readjustment process, the cadastral parcels that are inappropriate for construction becomes suitable for development in terms of the uses and densities brought by the local physical plans. One of the two main aims of this process is the readjustment of parcels and giving them back to the property owners; the second aim is to provide common spaces for public use and services (Ersoy, 2000).

In the Land Readjustments implemented according to Article 18 of Law 3194 and the 'Regulations for Guiding the Land Readjustments for the Article 18 of the Development Law', 40% of the property could be taken without charge and thus they can be allocated for the public uses (roads, parks, police stations, religious and educational buildings) decided by the local physical plans (Figure 1).

Examining the advantages and the problems the land readjustment method is of great importance in evaluating the Article 18 of Law 3194 and the 'Regulations for Guiding the Land Readjustments according to the Article 18 of the Development Law'.

Advantages of land readjustment

The method which has improved technically and institutionally through the historical process creates important possibilities for both property owners and the authorities. If we evaluate the method considering other examples of practices in the world and considering the legal-administrative structure and philosophy of planning, the main contribution of the method to the authorities is that it allows them to provide public spaces such as roads, squares and parks without paying a price with the help of contribution percentages (Yomralioglu, 1994).

Larsson (1997) indicates the advantage of the method for the public authorities as its contribution to the planning process to be fast and holistic. Main justification is that it minimizes the time period that is required for the process of analysis and unification of cadastral ownership within the defined readjustment area.

The potentialities provided by the method for the property owners are as important as the potentialities for the authorities. The basic gain for the property owners derived by the land readjustment method is that the cadastral parcel turns into an urban land suitable for development accompanied by a rise in values. Another factor that makes the method preferable for the property owners is that it allows the continuity of ownership in the same location. In 'expropriation' method, for instance, although the economic price is paid, the right of ownership is removed in terms of location, which emerges certain social problems. Thus the possibility of the allocation of land in the same location after a certain contribution percentage is charged for readjustment is an

important potential (Figure 1).

Problems of land readjustment process

The problems of Land Readjustment Process come from in terms of potentials created for property owners and authorities (public). The major problems of land readjustment method can be sited as the problem of 'participation' since the authorities give decisions on the private property without the initiative of the property owners; the problem of 'disjointed' approaches since the adjustments mostly made on the scale of a 'single building block' for the sake of simplicity in implementation and the problem of "equality" due to neglecting the decisions of varying density and development in the plans.

The most important problem in the method can be sited as that the method is handled in a manner that it serves to be a tool just for creating a development parcel (site-specific) aiming to share the cadastral lands. The method can be criticised in terms of not considering the urban environments to be created, sharing the land in terms of facade and plot-depth and end up with problems of 'quality' and 'qualitative aspects'.

Within this framework, it is of great importance to examine the problems of 'participation', 'the size of readjusted land', "equality" and 'formation of urban space'.

Participation

The first important problem of land readjustment within the legal-administrative mechanism is about the level of participation of the property owners.

The article 18 of the Development Law enables the authorities to act without the initiative of the property owners from the determination of the implementation area until the approval of these implementations (Turk, 2007). However, this structure disabling the property owners to participate and control the process forms the basis of the first problem within the method.

Although the concept of "participation and incorporation" is considered to be an important issues in land readjustment process (Sorensen, 2000; Li and Li, 2007), there is no sufficient efforts for realizing these issues. This is most probably a result of the lack of regulations which would form the basis of tangible practices (Balamir, 2003; Acharya, 1989).

Size and scale of readjusted land

Another important problem in the land readjustment method is about the scale and size of the lands to be readjusted. In the article of 6/a of the related legislation, it is emphasised that the area could not be smaller than a

Table 1. The Size of Land Readjustment Projects Implemented in Konya Metropolitan Region between 1991 and 2003.

Title of Land Readjustment	Area (hectares)	Title of Land Readjustment	Area (hectares)	Title of Land Readjustment	Area (hectares)
K.62	13.9	K.223	4.6	M.227	1.18
K.71	0.53	K.226	17.3	M.228	4.6
K.76	2.88	K.227	3.1	M.235	1.93
K.77	3.21	K.239	2.06	M.248	0.63
K.80	127.2	K.246	17.9	M.261	0.2
K.83	0.75	K.247	1.33	M.267	0.97
K.88	1.00	K.249	5.72	S.7	228.2
K.93	18.1	K.262	23.2	S.8	230.8
K.95	0.30	K.279	5.9	S.9	101.0
K.100	33.1	K.285	13.9	S.11	112.5
K.101	94.0	K.289	0.64	S.12	69.7
K.103	25.2	K.307	1.95	S.17	42.8
K.104	13.1	M.25	92.5	S.21	26.0
K.108	218.1	M.26	87.3	S.28	227.2
K.120	4.15	M.33	5.0	S.36	36.1
K.126	0.93	M.38	17.3	S.38	25.8
K.127	0.87	M.48	4.8	S.46	54.8
K.133	0.28	M.56	18.2	S.53	62.7
K.135	0.50	M.68	11.6	S.62	47.1
K.142	1.74	M.83	4.18	S.73	9.0
K.144	3.00	M.102	111.6	S.74	55.6
K.146	0.62	M.105	8.5	S.78	17.0
K.157	0.32	M.126	104.5	S.84	235.7
K.158	9.4	M.144	675.4	S.93	67.1
K.175	11.0	M.146	75.6	S.94	94.5
K.188	4.22	M.174	75.9	S.96	63.2
K.190	0.18	M.184	4.0	S.97	70.9
K.196	57.3	M.200	2.2	S.104	35.3
K.197	55.5	M.201	9.17	S.113	29.0
K.199	13.9	M.207	72.4	S.119	140.2
K.205	4.10	M.220	1.06	S.137	120.1
K.218	0.78	M.224	2.1	S.148	1.18

There are three districts in Konya Metropolitan Region (in central Anatolia), Karatay (K), Meram (M) and Selçuklu (S). The sizes of readjusted area are differ from 0.18 to 675.4 hectares.

Source: The Archive of Konya Regional Direction of Cadastro and Land Registration, 2004; Me hur, 2004.

building block. However, what occurs in practice is that the readjustment areas are defined as small as possible within the legal limitations and thus little effort is required for less property owner and ownership data (Table 1).

Although the method allows to implement urban plans in a holistic approach, in the sake of facilitating the implementation process, the readjustments take place even in the scale of 'building blocks' and thus a problem of "continuity" and "pattern" in the formation of urban space. Furthermore, the method may allow serious variations of contribution percentages within the neighbouring neighbourhoods so therefore it creates a problem of equality.

Equality

Land readjustment method results in serious equality problems within the existing legal administrative framework. The problem arises from that the same ratio of contribution percentage is taken from each property and then the rest of the whole property is shared according to the size of the area. In this process, different functions, forms and locations of the properties shaped by the local physical plans and the value increases generated by them are not taken into consideration and thus the same contribution percentage is charged from all the properties

Table 2. Different density decisions in local physical plan and their application in K.121.

Building block	Density of the allocated parcel (FAR / BAR)
A	0.25 / 0.90
B	0.25 / 1.50
C	0.25 / 1.80

which is not rational (Gunduz, 1990).

In the planning process, not all previous cadastral parcels are provided with the same density and development and thus properties having similar economic values previously, become differentiated in terms of location and development rights. These kinds of negative implications of land readjustment method should be eliminated. That is, these kinds of applications in land readjustment method result in serious variations in terms of economic gains.

The criteria for providing the development parcel in the same location of the cadastral parcel when possible, and equal rate of contributions for readjustment from the properties are the main reasons of the problem of equality. The figures in the example below exhibit the problem, the Floor Area Ratio (FAR) is the same throughout the planning area, however four different densities are assigned in terms of Building Area Ratio (BAR) (0.90; 1.50; 1.80) (Table 2, Figure 2). As a result of this, for the property owners with properties in the similar qualities and values of cadastral parcels, great differences of economic gains might be observed. For the process in Turkey, charges the contribution percentage from the size (area) of the property and the allocation of the rest of the land is realized from the new development parcel recompensing in location to the previous cadastral parcel again in terms of its size.

The approach in Turkey neglects different density and development decisions and legitimizes the variations in gains. Accordingly, certain social and economic problems emerge inevitably where the equal sharing of generated values among the society is not considered.

Formation of Urban Space

Space is geometrically bounded by variety of elevations. It is the clear legibility of its geometrical characteristics and aesthetic values (Krier, 1984). And, it should be emphasized that the characteristics of space are by no means exclusively technical/physical and economic (Gürel, 1970; Giedion, 1971). Space is strongly related to social, economic and cultural issues and cannot be separated from the use and activity (Rapoport, 1977; Allmendinger et al., 2000).

Qualitative aspect of designing space is another important issue for this discussion. Since Vitruvius (1960)

(Moughtin, 1999) wrote these aspects, order, arrangement, eurhythmy, symmetry, propriety and economy, in the first century AD, the language of compositional analysis has changed mainly in the number and range of criteria used for quality description (Moughtin, 1999). Although there are many criterias for this issue, some of them can be defined common characteristics, such as, legibility (Lynch, 1975), human scale (Cartwright, 1980; Ashihara, 1983), hierarchy of urban space (Banz, 1970), the size and structure of street block and architectural composition which gives form urban space (Hall, 1996; Moughtin, 1996; Moudon, 1997)

Despite the comprehensive, multi-dimensional and interdisciplinary context of urban space, there exists an mechanical approach for the land readjustment process which has an important role in the formation of urban environment in Turkey (Akkoyunlu, 1999). Land readjustment method in the existing planning implementation is considered to be a process of transforming the cadastral land into development land after free charges for public spaces. Neglecting the social, cultural and psychological is the most important negative aspect of land readjustment process in such an approach.

It is almost impossible to consider that the multi dimensionality of the 'formation of space' is perceived within the existing understanding of planning and implementation. Beyond the formation/production of urban land, the process of this solely readjustment of ownership shapes the formation of cities (Gunay, 1997). In other words, the main concern becomes not the formation of qualified cities but production of development parcels where property owners have shared or non-shared rights of ownership. Within this approach development parcels are produced, however the volumes between buildings are not taken into consideration which forms the basis of problems of urban spaces in Turkish cities. In the process of parcel production without other shareholders, it is neglected that the lines constituting the new parcels not only determine the allocations but also determine the buildings and spaces between them (Figure 3).

What forms the basis of this problem is that the planning and implementation processes are disjointed from each other and controlled by two different professions. While planners are authorised for the production of urban plans; and geodesy and photogrammetry engineers are authorised for the realization of and the implementation of the plans and land readjustments. This duality creates problems in terms of production of qualified urban areas. The plans made for the qualified development of the cities are implemented by actors whom of which are not planners, results in formation of parcels within an engineering approach. Thus, the process results in anyhow produced areas disjointed with the overall scheme and not qualified as urban spaces.

Another aspect of the examined land readjustment method is of concern of architects. It is not acceptable that the architects who are an important part of producing



Figure 2. Variations in Gains as a Result of Land Readjustment, K.121. The land readjustment application, K.121 in Karatay District (Konya) was verified by Council of Karatay Municipality at 9th December 1997. Source: Karatay (Konya) Municipality, 2009. Photograph; Mehmet Caglar Meshur Personal Archive, 2009.

qualified urban space, like urban planners are limited in terms of creativity and design within the development parcels shaped by the engineering approach. To sum up, what is important to emphasize is that land readjustment method within such defined kinds of practices does not contribute to the production of qualified spaces and thus the process results in serious problems for urban areas, urbanites and actors giving effort for the high quality urban areas.

The most important point to emphasise is that the ownership rights are preserved at the expense of degeneration of urbanisation processes, there is a lack of voice approaches, and together with contradictions in itself, the system creates economic and spatial problems which becomes impossible to remove and totally serves for the interest of the property owners.

Conclusion

Land readjustment method is the most widespread method that used in the implementation of urban plans in Turkey. The most important point of land readjustment method is that the planning and implementation phases are not sufficiently associated. This structure causes the problems in terms of landowners' participation, size and scale of land readjustment application, equality and formation of urban space. And, for solving these problems, some regulations should be arranged technically and institutionally.

The lack of landowner participation in land readjustment process is an important institutional problem. This context prevents self-controlling of application process and makes it difficult for incorporation. So, the article 18

Table 3. The size of Urban Plots in M.135.

Building block	No.of plot	Area (m ²)	Building block	No.of plot	Area (m ²)
A	1	648.3	C	1	2164.4
	2	2730.5		2	2338.4
	3	1519.1		3	1280.4
	4	1442.2		4	1701.5
	5	1579.9		5	1785.0
	6	1626.9		6	3976.3
	7	769.5		1	2218.2
	8	553.9		2	1936.4
	9	825.7		3	1578.5
	10	568.9		4	1681.0
B	1	1995.7	D	5	2000.0
	2	1288.1		6	2462.3
	3	1706.7		7	2348.9
	4	3010.7		8	1588.3
	5	1577.4		1	1197.8
	6	2185.0		2	1822.7
			E	3	970.8
				4	605.7
				5	649.7



Initially, urban plots are determined by geodesy and photogrammetry engineers in land readjustment process. And, the architecture of buildings is shaped with regard to these plots. Although given the same development rights, varying urban plots (parcels) differ from 553.9 to 3976.3 m² produced in the process aiming to create separate parcels (Table 3).

Figure 3. Allotment Plan of M.135

The land readjustment application, M.135 in Meram District (Konya) was verified by Council of Meram Municipality at 8th March 2000.

Source: Meram Municipality, 2009.

Photographs: Mehmet Caglar Meshur Personal Archive, 2009.

of the Development Law which regulate the land readjustment process should be revised for solving participation and incorporation problems.

The other important handicap is scale and size of land readjustment application. It causes partial implementation and this is an important obstacle for urban continuity and pattern. In this respect, for overcoming the problem, a relevant application area for land readjustment should be discussed at legal framework.

The equality and the formation of urban space are the most important problems in this discussion. The unequal context of land readjustment process causes an important confidence problem for land owners, they interpret land readjustment method as an instrument for providing concession to someone. So, the value-based system is the unique solution for unequal context of method. Furthermore, the structure of the process has an institutional lack which externalizes urban planners, architects, and enables other professions which are not equipped with production of urban space. Therefore, the process should be considered within the design process of urban space and the roles of the actors in the process should be redefined.

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