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EFFECTS OF IMPROVEMENT PLANS ON SQUATTER AREAS:  
ANKARA CASE

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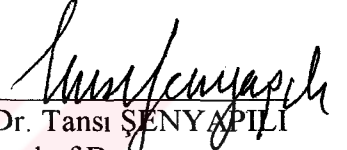
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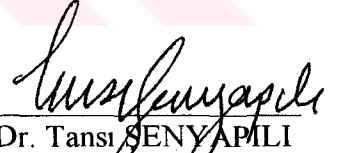
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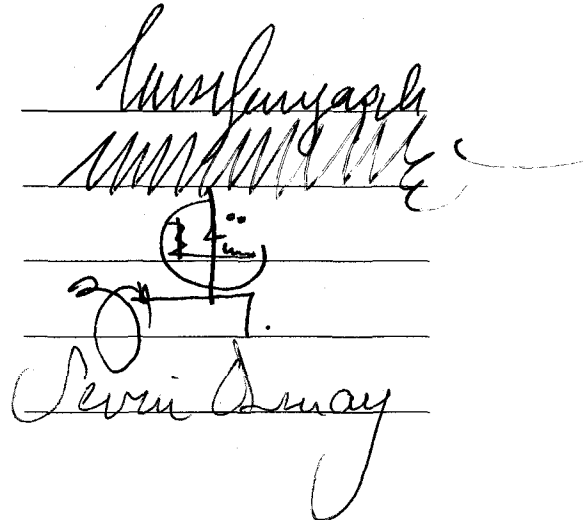
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## ABSTRACT

### EFFECTS OF IMPROVEMENT PLANS ON SQUATTER AREAS: ANKARA CASE

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Squatter problem appeared in the mid 1940s as a result of rapid urbanization and unbalanced socio-economic development in Third World cities. As in other developing countries, Turkey attempted to improve squatter areas since 1960s and these improvement studies have gained actuality and acceleration with the Act No:2981. Improvement planning concept, which is a unique solution in the world, has been brought by this Act.

Effects of these improvement planning works on squatter areas are very crucial. Thus, gains and losses of squatter areas from improvement plans are researched in this study. The main emphasis of this thesis is to clarify how improvement plans change existing living standards of squatter areas, therefore, existing and proposed values of population densities, social and technical infrastructures, land ownership, socio-demographic structure and land prices before and after implementation of improvement plans are compared.

**Keywords:** Squatter areas, gecekondu, Improvement Plan, Population Density, Socio-Technical Infrastructure, Land Price, Land Ownership, Socio-Demographic Structure.





## ÖZ

### ISLAH İMAR PLANLARININ GECEKONDU ALANLARINA ETKİLERİ: ANKARA ÖRNEĞİ

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1940 lardan itibaren gelişmekte olan ülkelerde, dengesiz sosyo-ekonomik büyüme ve hızlı şehirleşme sonucunda gecekondü problemi ortaya çıkmıştır. Diğer gelişmekte olan ülkeler gibi Türkiye de 1960 lardan başlayarak gecekondü alanlarının ıslahı üzerine çalışmalar yapmaktadır. Bu çalışmalar 2981 sayılı yasayla getirilen ve dünyada örneği olmayan İslah İmar Planı kavramı ile güncellik ve hız kazanmıştır.

İslah İmar Planı çalışmalarının gecekondü alanları üzerine etkisi büyük önem taşımaktadır. Bu sebeple, gecekondü alanlarının ıslah imar planlarından kazanç ve kayıpları bu çalışmada ortaya konulmaya çalışılmaktadır. Bu tezde, ıslah imar planlarının gecekondü alanlarındaki mevcut yaşam standartlarını nasıl değiştirdiği üzerine yoğunlaşmakta ve nüfus yoğunluğu, sosyal ve teknik altyapı, arazi sahipliliği, sosyo-demografik yapı ve arazi fiyatlarının, mevcut değerleri ile ıslah imar planıyla değişen değerleri arasında bir karşılaştırma yapılmaktadır.

Anahtar Kelimeler: Gecekondü, Gecekondü Alanı, Nüfus Yoğunluğu, Sosyal ve Teknik Altyapı, Arazi Fiyatı, Arazi Sahipliliği, Sosyo-Demografik Yapı.



To the memory of my father

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## **CHAPTER 1**

### **INTRODUCTION**

In this study, a certain period of the gecekondu phenomenon is examined in the capital city of Turkey, Ankara. The aim of this study is to evaluate the effect of improvement plans on squatter areas, in terms of population densities, social and technical infrastructure and land prices.

By the 1950s a large scale urbanization process has started all around the world mainly due to technological, economic and political evolution and changes.

After World War II, radical changes appeared in the world in terms of international relations. These changes have been manifested and determined especially in relations between developed and developing countries. Before World War II, some developing countries had been depended administratively on developed countries. After the War, economic dependency began to prevail. Technology and capital transfer to developing countries for their raw material and cheap labor, gave rise to new international relations and even today this economic interaction between developed and developing countries go on.

In addition to these radical changes in the relations of developed and developing countries, rapid and comprehensive urbanization process started particularly in developing countries. Industrial investments to big cities and agricultural investment to the rural areas created migration from the latter to the former.

In Africa, Asia and Latin America, where this particular migration was most prominent the main reasons are cited as “transformation of traditional, social, political and economic structure, political freedom, low death-rates after the Second World War and the economic development which was accelerated by the industrialization”(Eke 1982:228).

Like other developing countries, Turkey has also been influenced by these changes in the world. In the period of 1923 - 1945, from foundation of Turkish Republic to the World War II, Turkey has empowered her internal market, developed industrial investment and has improved her transportation network. These changes in economic structure gave rise to industrialization which shaped the urbanization process of Turkey.

Agricultural mechanization started in 1948 and multi-party system was accepted in 1950. These changes have created a new period: liberal approach in the economy. By the introduction of Marshall program and credit Turkey begun to import mechanical equipment for agricultural mechanization. Mechanization in agriculture caused excess labor in rural areas, whereas in big and industrialized cities labor demand increased tremendously.

Big cities of Turkey especially İstanbul and her capital city, Ankara, have faced the rapid urbanization process. There was a very sharp increase in the urban population of Ankara from 1927 to 1935 (74553 in 1927 and 122720 in 1935). In fact, the growth rate in the urban population of Ankara, was a great deal higher than the average rate of Turkey. It is widely accepted that, the reason for this increase was the new role of Ankara as a capital city of young Turkish Republic. The period from 1950's up to now, is similar to 1927-1935 period in that the increase in urban population of Ankara has been very high.

Urban population growth through natural causes plus migration led to an increase in the demand for new housing. Like in most of other developing countries, in Turkey, because of the inability of the governments to form a balance between housing supply

and demand the migrants have met their residential requirements through informal settlements, particularly in the surrounding areas of large cities. The squatter settlements, which are called *jacale* in Mexico, *rancho* in Panama, *macambo* in Brazil, *Favela* in Argentina, *gourbeville* in Tunisia, *casaba* in Algeria, *bidonville* in Morocco, *bustee* in India and *GECEKONDU* in Turkey, are consistent features of developing country cities. This process of land acquisition and shelter provision is often illegal, but in many cases it is the only option, because public housing projects fall far short of demand and are often benefited by middle-classes rather than poor households.

All developing and developed countries, which have squatter problem, attempt to find most effective solution for this problem. Experiences from different countries show, in general, four types of solution: repressive solution, *laissez-faire* solution, prevention and integration (Durand-Lasserve, 1996:69):

The authorities long opted for repressive solutions to the problem, most commonly eviction: illegally occupied land was to be considered the equivalent of non-occupied land. However, by the end of the seventies, the generally not very effective and far too politically expensive use of repression was gradually abandoned and replaced by a combined policy of *laissez-faire*, prevention and integration.

Justification for the *laissez-faire* approach was that a policy of legalization would encourage illegal practices and hence, defeat the authorities in their efforts to promote urban order. As a result they decided to postpone both infrastructure work and integration of spontaneous residential districts at least temporarily.

Prevention policies primarily took the form of "sites and services" campaigns involving the production of developed land on peripheral areas of the city for housing or rehousing income groups that lacked access to the formal private market.

The most recent response concerned the implementation of experimental projects for housing improvement and integration of spontaneous housing areas. These were accompanied by policies aimed at improving the efficiency of institutions in charge of

urban property management, transferring responsibilities to local authorities, encouraging formal private sector involvement and partnership with the state, and creating a safety net, which included subsidies and emergency programs for the most needy in order to ensure social space.

The implementation of these four solutions has led to the same conclusions everywhere: in a majority of cities, we have reached the point where conventional planning and regulation solutions no longer provide an appropriate or effective response for holding urban growth in check; they are unable to respond to the pressure and diversity of demand and have little and or no spin-off effect.

Parallel to these solution alternatives, Turkey displays three different approaches to squatter problem (Türk Belediyecilik Derneği, 1994:157):

The first approach is the modernist approach, which contains different mentalities. At the beginning, prohibition of squatting spread extensively. After a while, however, different projects, such as technical aid, credit, cheap land, housing project, have been developed in order to increase the applicability of development plans. It can be said, that this approach is traditional and has been used in general by planners and technicians.

Populist approach is the second approach which accepts the reality of gecekondu concept and defends the necessity for its forgiveness and maintenance. The continuity of modernist approach is reflected in this approach as well. Forgiving gecekondu built until a certain date and prohibition of future construction of gecekondu were some of the examples of modernist approach. In time, more sensitive views like trying to understand the background of squatting process, developing different planning alternatives like gecekondu prevention zones, have been added to this approach to control the problems.

The third and the last approach accepts the phenomenon as a social problem. According to this approach, there are two types of problems: cultural and economic.

While cultural problems included urbanization and cultural transformation, economic problems consisted of finding jobs in organized working areas, getting out of formal sector and integration with urban way of life.

As Durand-Lasserve (1996), stated, the conclusion of these solution alternatives is similar in countries that have squatter problems. Using gecekondu as a political tool, enacting lots of legalization acts and lack of efficient, powerful planning system brought the problem to a more complex and less solvable situation.

Following Introduction, Chapter II, discusses the historical spatial development of Ankara city and development of gecekondu problem with reference to socio-economic development of Turkey and Turkish cities. The problem is discussed in seven periods: 1923-1930 period, 1930-1940 period, 1940-1950 period, 1950-1960 period, 1960-1970 period, 1970-1980 period and 1980-1996 period.

In Chapter III, urban planning experiences of Ankara, and legal and administrative arrangements related to gecekondu problem are given. Jansen and Yücel-Uybadin plans, other planning studies, establishments of planning organizations, legal and administrative arrangements like; legalization acts, improvement planning works are discussed with reference to evolution of gecekondu problem. This Chapter aims to emphasize the importance of gecekondu problem, Turkey's policies and approaches to the problem.

Chapter IV introduces different meanings and examples of "squatter improvement" in the world. Turkey, which has a unique solution, improvement plan, are examined more deeply. This Chapter brings how improvement plans are implemented and their financial and organizational framework referring to gecekondu acts. Implementation problems that are caused by legal arrangements and different suggestions from different actors are given to analyze the effectiveness of improvement plans.

In addition to an empirical study conducted within the framework of improvement planning for Ankara namely in; Altındağ, Çankaya, Etimesgut, Keçiören, Mamak and



Yenimahalle districts, which have improvement planning works a case study in 4<sup>th</sup> Street in Yıldız neighborhood was conducted. In the Chapter V, the methodology, hypothesis and findings of the research are given both for the whole Ankara and 4<sup>th</sup> Street. Effects of improvement plans on population densities, social and technical infrastructures, land prices and social economic structure on these areas are explained in twelve years period.

In the last chapter, a summary of results of empirical study, suggestions for improving the living conditions of squatter areas are given.



## CHAPTER 2

### HISTORICAL SPATIAL DEVELOPMENT OF ANKARA

Spatial development of Ankara, in a time perspective will be examined in this chapter. The economic, social, political and physical factors which affect the urban macroform will also be given below.

#### 2. 1. The 1923 -1930 Period

When Ankara was declared as the capital city of republican Turkey, it was a small town with its population of 20 000 people and lying on a hill of 978 meters in height with 140 hectare of settlement area. The hills of Ankara like Çankaya, Dikmen, Keçiören and Etlik have heights of more than 1100 meters. The lowest hill has a height of 850 meters which is located near the Station. Hıdırlık, Aktaş and Kale are the some of the smaller hills in the city (Şenyapılı, 1985:5).

There were villages dealing with agriculture around the urban area (Figure 2.1). These were Solfasol, Pasaklar, Bağlum, Yakupaptal, Kıbrıs, Yakacık, Yuva Susuz, Kayaş, Nenek, Yalincık, Ludumlu, Alacaatlı, Karapürçek, Tatlar, Gicik, Dudurga, Etlik, Kalaba, Aktepe and İmrahor.

At the beginning of this period Taşhan (Ulus), was an intersection point for roads that were connecting the City and the Station. New settlements were being located around the axis which stretching from this point to the Atatürk's residence at Çankaya.

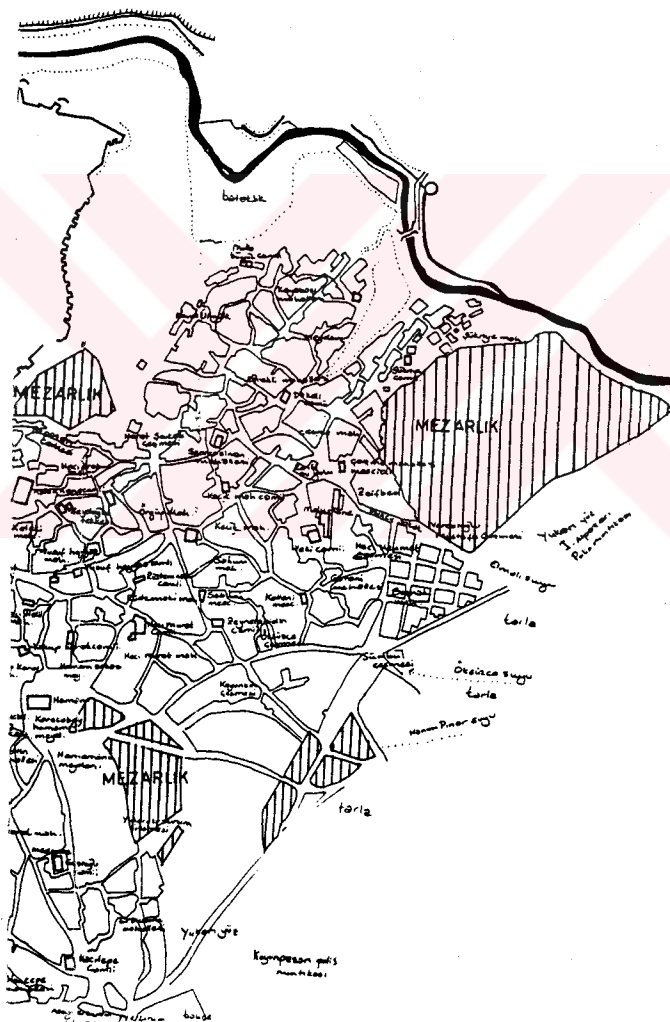


Figure 2.1. The Spatial Structure of Ankara in 1926  
Source: Şenyapılı, T., 1985 (From The Map Dated 1926)

The City faced two important improvements up to 1926: definition of the boundary of Municipality and diminishment of the number of neighborhoods from 69 to 26. It can easily be observed that, the Municipal boundary, which was mostly defined according to topographical structure of the city, was extended far beyond the city, which is lying around the citadel and the axis which is stretching from the Station to Çankaya (Figure 2.2.).

The completion of construction of Atatürk Boulevard and the establishment of new housing areas with high-rise buildings in Yenişehir in 1929 gave rise to speculative settlements which had first started on agricultural areas lying in both sides of the boulevard. On the other hand, the first illegal settlements developed on the vineyards and arcades of Cebeci (Şenyapılı, 1985: 42).

Jansen's plan, which won the first development plan competition in 1928, lost its validity in a short time because of the rapid population growth. Instead of high-rise apartment houses with many flats that would meet the housing demand of large groups, low density housing areas were constructed according to this plan in these years. Thus, in the 1930s, illegal construction rapidly spread-out as the inevitable result of the unbalanced demand and supply.

The early gecekondu took place around the city center. The reasons are as follows (Şenyapılı, 1985: 44):

- \* public transportation was inadequate,
- \* the employment opportunities were in the old city center
- \* the widening trade and construction engineering occupations were gathered in the city center
- \* there were bare and uncontrolled areas (Altındağ hill, Akköprü,.. etc.) just close to the old city.

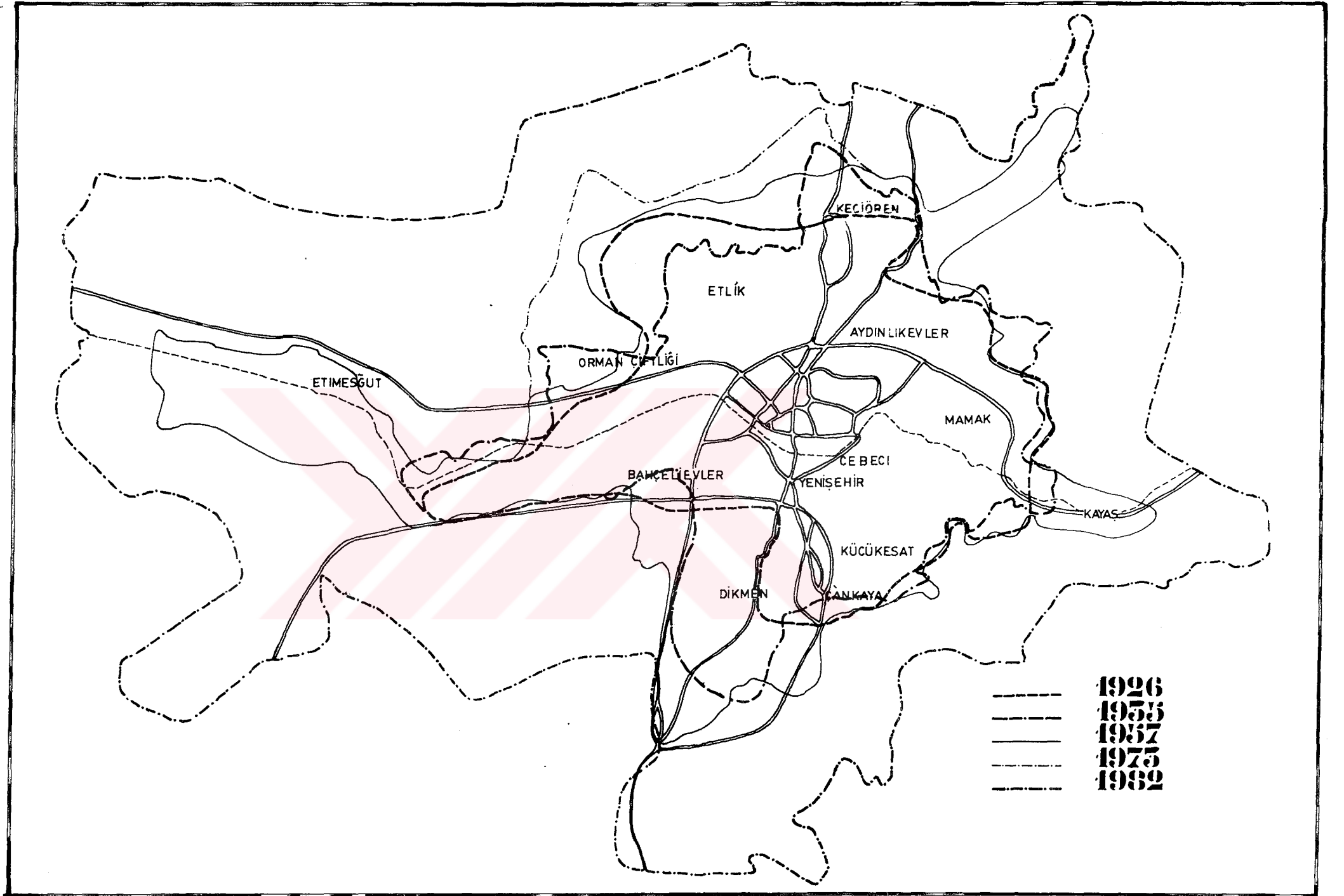


Figure 2.2. Changes in Ankara Municipal Boundary (1926-1982)

Source: Şenyapılı, T. 1985

In summary, low income groups were in the process of solving their housing problem through gecekondu building, in 1920 -1930 period and therefore this period denotes appearance of the first but powerful signs of the problem to come.

## 2. 2. The 1930 -1940 Period

1929 World Economic Crises is the most important theme of this period. The effects of this crises forced Turkey to apply import substitution policy and to reduce making investments to cities and villages. Thus, there was no sudden increase in the urban population of Turkey (Table 2.1. and Table 2.2.).

Table 2.1. Population Growth Of Turkey and Ankara Between Years 1927-1995

| Year | Tot. Pop. Of Turkey (000) | Urban Pop. In Turkey (000)* | Urban Pop. Of Ankara ** | Urban Pop. Ratio In Turkey % | Ratio Of Ankara In Tot. Urban Pop. | Ratio Of Ankara In Tot. Pop. % |
|------|---------------------------|-----------------------------|-------------------------|------------------------------|------------------------------------|--------------------------------|
| 1927 | 13648                     | 2223                        | 74553                   | 16.28                        | 3.35                               | 0.546                          |
| 1935 | 16158                     | 2721                        | 122720                  | 16.84                        | 4.51                               | 0.759                          |
| 1940 | 17821                     | 3216                        | 157242                  | 18.05                        | 4.89                               | 0.882                          |
| 1945 | 18790                     | 3466                        | 226712                  | 18.44                        | 6.54                               | 1.206                          |
| 1950 | 20947                     | 3924                        | 288536                  | 18.23                        | 7.35                               | 1.377                          |
| 1955 | 24065                     | 5425                        | 451241                  | 22.54                        | 8.32                               | 1.875                          |
| 1960 | 27755                     | 7200                        | 650067                  | 25.94                        | 9.03                               | 2.342                          |
| 1965 | 31391                     | 9343                        | 905660                  | 29.76                        | 9.69                               | 3.466                          |
| 1970 | 35605                     | 12724                       | 1236152                 | 35.74                        | 9.71                               | 4.471                          |
| 1975 | 40347                     | 16707                       | 1701004                 | 41.41                        | 10.18                              | 4.216                          |
| 1980 | 44736                     | 20330                       | 1877755                 | 45.44                        | 9.24                               | 4.197                          |
| 1985 | 50664                     | 26865                       | 2235035                 | 53.02                        | 8.31                               | 4.411                          |
| 1990 | 56473                     | 33326                       | 2398495                 | 59.01                        | 7.19                               | 4.247                          |
| 1995 | 61644                     | 38572                       | 3134100                 | 62.55                        | 8.13                               | 5.084                          |

Source: SIS, Population Statistics

\* : Settlements Population With Over 10 000

\*\* : Population Within Municipal Boundaries Of Ankara

Unlike the whole country, Ankara has faced very rapid population increase of 74 553 to 157 242 during the years 1927-1940, because of new job opportunities in construction, service and trade sectors. Thus, housing problem increased particularly for low income groups. While high income groups of new population settled in Çankaya and close to Atatürk Boulevard in Kavaklıdere, high-middle income groups

chose location in Yenisehir and middle income groups in Cebeci. Low income groups settled in old houses in the old city or ‘baraka’s that were constructed on uncontrolled public lands.

Table 2.2. Rate Of Increase Of Urban Population In Turkey and in Ankara

| Year | Rate Of<br>Incr. Of<br>Urb. Pop. In<br>Turkey | Rate Of<br>Incr. Of<br>Urb. Pop.<br>In Ankara |
|------|---|---|
| 1927 | 22.4  | 64.6  |
| 1935 | 18.2  | 28.1  |
| 1940 | 7.7   | 44.2  |
| 1945 | 13.2  | 27.3  |
| 1950 | 38.2  | 56.4  |
| 1955 | 32.7  | 44.1  |
| 1960 | 29.7  | 39.3  |
| 1965 | 36.2  | 36.5  |
| 1970 | 31.3  | 37.6  |
| 1975 | 21.7  | 10.4  |
| 1980 | 32.1  | 19.0  |
| 1985 | 24.1  | 7.3   |
| 1990 | 15.7  | 30.7  |
| 1995 |   |   |

Source: SIS, Population Statistics.

In 1936, the development plan boundary was enlarged to the boundary of municipality, that was in essence enlargement of the speculation boundary. Houses with 600 - 1000 m<sup>2</sup> was allowed on the “enlarged area” stretching from Bahçelievler in the west to Cebeci -including Yenisehir- in the east. On the other hand, villas of 1000 m<sup>2</sup> area were allowed on the “exterior enlarged area” between Yenisehir and

Çankaya. For Keçiören, Etlik, Mamak, Dikmen which were the areas, on which the old vineyard tissue was located, villas with large gardens were proposed. Construction was not allowed in the periphery of these areas, where there were agricultural areas and meadows. After the approval of the development plan by the committee of development, the areas that will take the priority in the implementation of this plan, were determined. In this respect the villages like Keçiören, Kalaba, Mamak, Dikmen and Ayrancı took the priority (Şenyapılı, 1985: 66).

Consequently, in the 1930 - 1940 period, the city has extended, become more dense and attained a size of 157000 people, as the plan was disregarded. The solution to housing problem of low income groups was “barakalaşma” in 1923 - 1930, whereas in 1930 - 1940 “housing cooperatives” were constructed by middle income groups. Within the extending city the gecekondu had not yet started to take powerful form in space so as to draw formal attention.

### **2. 3. The 1940 - 1950 Period**

In this period, the most important phenomenon was the acceleration of gecekondu development due to Marshall program in 1945. Development of mechanization in agricultural sector caused increase in migration from rural to urban (Table 2.1. and Table 2.2.).

While the model of houses with gardens continued to be constructed on cheap land, two different models, “housing cooperatives” and “gecekondu” as a solution to middle and low income groups’ housing problems also continued. According to Sümer Ural (1974), 22 housing cooperatives were constructed in Ankara in 1935 - 1944 period in total of 50 in overall Turkey.

Low income groups, in the city margins, who have migrated from rural to urban, were unskilled farmers and they were abandoned both economically and also in space. The poor newcomers had to find free accommodation (Şenyapılı, 1985:80).



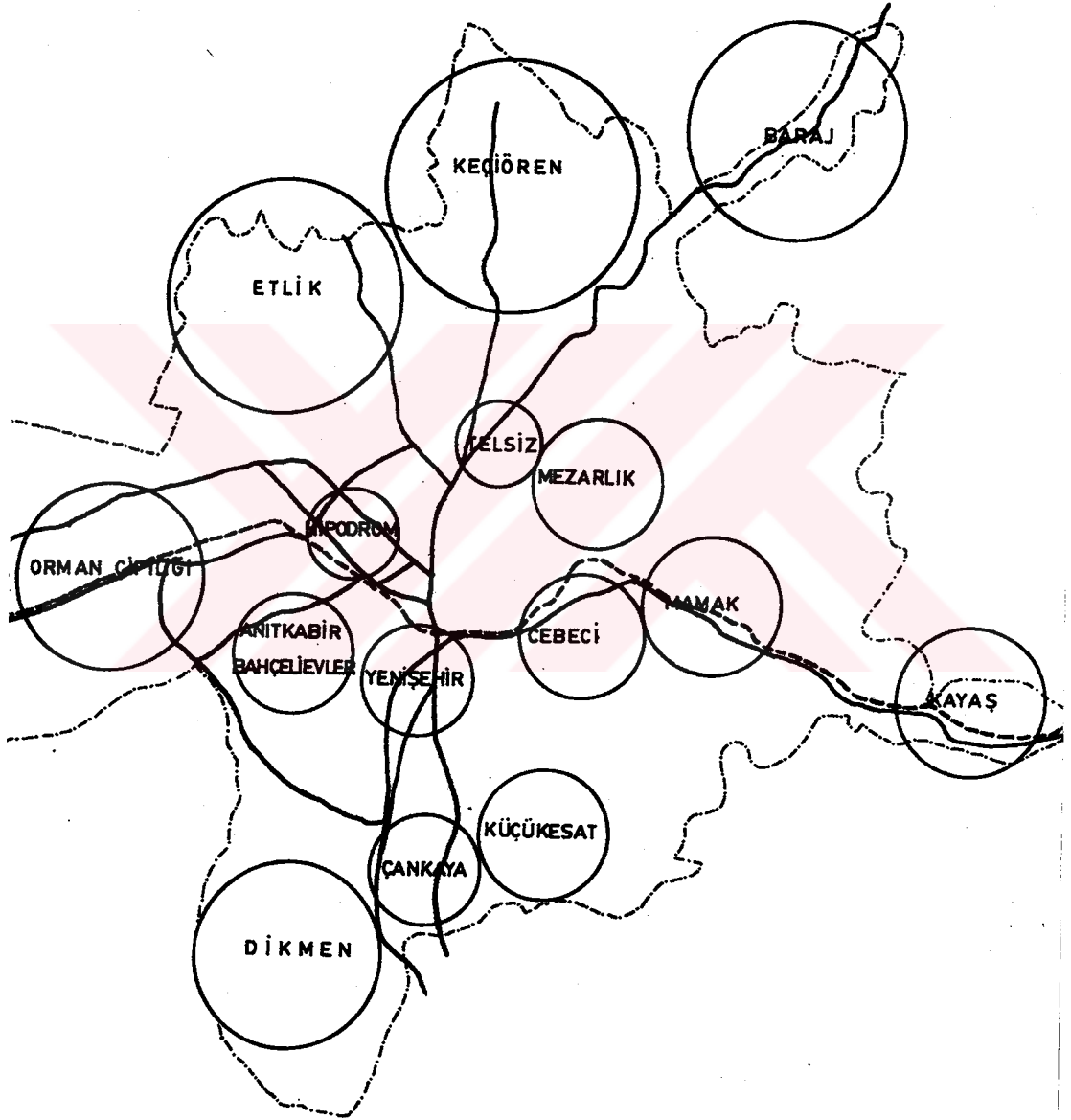


Figure 2.3. Districts of Ankara in 1949

Source: Şenyapılı, T. 1985

There were three main axes where gecekondu settlements located (Table 2.3.). The first axis consisted of Altındağ, Atıfbey and Yenidoğan districts and the vicinity of Telsiz where 67 % of the area was covered by gecekondu inhabited by nearly 50000 or 60000 people. In the second axis, there was Gülveren and its surrounding settlements of which 41 % was covered by gecekondu. The last axis consisted of the newly developing districts like Seyranbağları and Balkehriz which were completely covered by gecekondu (Figure 2.3.) (Şenyapılı, 1985:81).

Table 2.3. Gecekondu Districts in Ankara between 1940 - 1950

| District   | Population (1945) |
|------------|-------------------|
| Altındağ   | 14116             |
| Atıfbey    | 7354              |
| Aktaş      | 2353              |
| Yenidoğan  | 9053              |
| Yeni hayat | 4396              |

Source: T. Şenyapılı, 1985 p. 81

Another important development in this period was, the enacting of the Regulation Acts 5218 and 5228 as a solution to gecekondu problem. Although the word “gecekondu” was not used in these acts, the main aim was the legalization of gecekondu which take place in the Municipal boundary.

As a conclusion, the main theme of this period was the implementation of Marshall program which caused a structural change in the agricultural sector. Thus, gecekondu phenomenon started to be recognized as a problem in this period the solution to which had to be developed rapidly.

## 2. 4. The 1950 - 1960 Period

1950 - 1960 was the period, in which gecekondü housing instead of disappearing began to take role in the system and was started to be accepted as a political investment tool.

There were important changes in the economic structure of Ankara in this period parallel to that of Turkey. The labor and income share of agricultural sector were decreasing, whereas the importance and the share of the service, commercial, building, manufacturing sectors were rising. The attractive factors of Ankara emerged besides the pushing factors of rural areas during first two periods, while there were no attractive factors in urban area against the pushing factors of rural areas. Job opportunities made Ankara the second (after İstanbul) attractive center for this migrated population (Table 2.4.).

Table 2.4. Distribution of Gecekondü Number and Population Among Big Cities in 1958

| City     | Gecekondü Number | Gecekondü Population |
|----------|------------------|----------------------|
| Ankara   | 45 850           | 222 275              |
| İstanbul | 40 000           | 280 000              |
| İzmir    | 4575             | 20 000               |

Source: T. Şenyapılı, 1985, p. 142

There were two important decisions in terms of spatial structure of Ankara; the first was the construction of circular railway connecting Konya and Samsun roads and the second was stretching of the city on the north-south axes by the new development plan (Yücel-Uybadin's plan).

Spatial structure of Ankara can be observed in Figure 2.3 and Figure 3.2. While according to the 1949 map of Ankara, Etlik and Keçiören were suburbs, they were

included within the boundaries of city in this period. Şenyapılı, 1985, summarizes the reasons for this peripheral development (Şenyapılı, 1985:145):

\* location of gecekondu in Altındağ - Atıfbey - Telsizler, new production activities in Akköprü - Sebzeler bahçesi - Kazıkiçi bostanları and Soğuksu, and new housing corporations around the Ziraat Institution.

\* the growth of Keçiören and Etlik in the direction of city center.

\* construction of housing cooperatives and gecekondu in Kalaba village and Aydınlikevler by low - middle and middle income groups.

In addition to these changes, Cebeci, which had an increasing number of gecekondu, became denser. Yeni Mezarlık, Saimekadın, the axes of Mamak - Üreğil - Kayaş, Abidinpaşa, Topraklık, Balkehriz were some of the settlements that were covered by gecekondu in this period (Şenyapılı, 1985:146).

In summary, this period was very crucial in terms of changing spatial structure of Ankara and expansion of gecekondu and their spatial organization in the form of neighborhoods.

## **2. 5. The 1960 - 1970 Period**

In 1960 - 1970 period gecekondu family gained power in political and economical dimension.

Gecekondu families assumed multi-income characteristic because of their cheap labor and entrance of their females and children into the working life. As a result of their increasing incomes and acceptance of gecekondu phenomenon by the community under certain situations, some infrastructure and service investments were made in gecekondu settlements both in housing and in neighborhood scale (Şenyapılı, 1985: 48).

In the Yücel-Uybadin development plan, whose target year was 1985, approximately 750 000 - 800 000 people were estimated to be living on 11 hectares of land. But population of Ankara was more than 1 million and the city was dispersed onto 140000 hectare land in 1969. As a result, some of the low income people, who could not find any place in legal housing areas, formed new gecekondu settlements around Balgat, between Balgat and Dikmen, Aşağı Öveçler and Yukarı Öveçler, on the slopes of the plateaus (1950 - 1150 meters of height) in the west, in Cebeci, Abidinpaşa and Natoyolu districts and on the areas in Samsun road direction, in the north of railroad starting from the graveyard to Mamak direction and on the areas between Mamak - Kayaş that is in the southern and eastern part of the city (Altaban, 1985: 134).

Most of the gecekondu prevention areas, assigned according to Act No: 775 (Gecekondu Kanunu), like Sincan, Aktepe, Şentepe and others were formed between 1968 and 1975. But only the ones which were inside the urbanized area, were being settled while the others in the periphery of the city, remained unsettled for a long time like Sincan.

In summary, at the end of this period, 6163 hectares of land constituted 69% of the total residential areas, were illegally developed (TSSA, 1996:36). Illegal housing settlements were developing in northern and southern parts of the Ankara which were not suitable for settlement and were out of the boundary of the development plan. On the other hand demolition, reconstruction and density increase in legal housing settlements were going on in 1960 - 1970 period.

## **2. 6. The 1970 - 1980 Period**

In the 1970 - 1980 period, as a result of rapidly increasing inflation, land prices increased to unpredicted levels in gecekondu settlements, especially in those neighborhoods that had easy transportation access to city center and where infrastructural system was completed. On the other hand, gecekondu settlements (Atıfbey, Yenidoğan, Gülveren, Gülseren, Mamak, Balkehriz, Türközü, Topraklık, İncesu, Balgat, Aşağı Öveçler and Yukarı Öveçler, Dikmen, Yıldızevler,

Çukurambar,...etc.) which were developed in the unsuitable lands of the northern and southern parts of the Ankara, still lacked the basic social and technical infrastructural services (Altaban, 1985: 135). The former type of gecekondu settlements became attractive for middle class housing cooperatives.

After 1970s, the settlements like Oran, Mesa employee cooperatives along the Eskişehir road, Sincan gecekondu prevention areas, were nationalized. So, new housing areas (2615 hectare) in the west corridor passed to public sector (Altaban, 1985: 137).

Other gecekondu settlements of this period were; Çubuk Brook in the east, Karapürçek, reaching 1150 meters of height, in the south and plateaus stretching through the sides of Hüseyin Gazi Mountain that is lying behind Mamak, Kayaş, Mühye and İmrahor Valleys.

As a conclusion, the most important problem for gecekondu family in this period was, catching the right time to transform their gecekondu to an apartment or money.

## **2. 7. The 1980 - 1996 Period**

After 1980, there have been changes in urban land market of Turkey as a result of privatization and by the measures taken by the military government. Large scale housing projects, such as Batıkent, and acts legalizing and adding gecekondu areas to the urban land market started to be developed in this period (Şenyapılı and Türel, 1996: 15).

At the beginning of this period, due to strict military management construction of gecekondu and the share of illegally developed areas in total residential development was reduced to 56.7% and 47.7% in this period, yet these areas increased to 9480 hectares in 1985 and to 10270 hectares in 1993 respectively (TSSA, 1996:36). City fringes, where squatters were located informally in former periods, were preferred by mass housing cooperatives and middle income group cooperatives. High income

groups preferred to settle on the urban fringes that were separated from the city by big public institution areas.

Squatter acts 2805 and 2981 started the period of improvement planning works for squatter neighborhoods of Ankara adding these squatter areas to urban land market. In 1993 regularized areas reached to 93.9% of the total illegally developed areas (TSSA, 1996:36).

Thus, the 1980-1996 period is the period in which a different approach to gecekonu phenomenon in the form of improvement planning has been started.



## CHAPTER 3

### URBAN PLANNING EXPERIENCE OF ANKARA

In this chapter, planning experiences of Ankara and legal and administrative arrangements effecting urban macroform will be briefly examined in a time perspective.

It was already mentioned that, Ankara, after decelerated as a capital city in 1923, faced a boom of population. This rapid population increase caused some problems (Şenyapılı, 1985:19):

- creating functional administrative tissue in space emphasizing the arrival of the new administration,
- opening new housing areas in old Ankara to satisfy the housing demand of new comers,
- developing adequate infrastructure for housing areas,
- developing contemporary superstructure institutions,
- creating an organizational frame to solve the finance, management and other problems of the developments mentioned above.

In order to solve these problems, the first organization related to urban improvement, Ankara Prefecture, was set up in 1924. Prefecture is a specific local administrative organization developed by Ottoman Municipal implementation. The assembly of Ankara Prefecture was established different from that of İstanbul. The condition of owning any estate to be elected for Prefecture which was the case in İstanbul was



canceled and Ankara Prefecture adopted a productive municipal approach (Tekeli, 1980:54). Some of the most important implementations of Prefecture during the six years (1924-1930) were draining of the swamp lands, expropriation to provide land for Yenisehir, establishment of brick, tile, lime factories and worker houses and the last and most crucial work was holding the first development plan competition (Tankut, 1993:50).

In 1927, Löhler made a development plan for both the old and the new city. Due to the impossibility in implementation of old city plan, the new city plan was rectified implementation started. Planned areas was covering 150 hectares for 250 - 300 000 population for a 50 years period. After realizing the insufficiency of this plan, a competition was held by Ankara Prefecture in the same year to solve the problems of urban improvement.

As mentioned before in 1928 Herman Jansen's plan was elected as the winner. According to his plan, 270 000 people were to be located on 1500 hectares at low density as 120 - 240 person/hectare (Figure 3.1.).

Jansen suggested that housing areas take place in the two determinative axes of the city, on the north - south and east - west directions. While low income groups were settled in north of the Boulevard and north - west (Amele neighborhood etc.), middle and low income groups were settled in the old city, middle groups were also located in Sıhhiye and Cebeci and high income groups resided in Bakanlıklar, Kavaklıdere - Çankaya axis (Şenyapılı, 1985:38).

Jansen was very sensitive to land speculation concept as an experienced city planner. According to him; the most important obstacle to implementation of the plan was the land speculation which had already been spreading in the city and its borders. Indeed, he reported (Yavuz, 1980:6);

“If land speculation is overcome and development facilities are concentrated in one hand, an important job can be realized as sample of city development.

Ankara could be a turning point in capital city development in contemporary sphere”.

He had two conditions to be successful (Yavuz, 1980:6):

- concentration of development facilities in one authority,
- overcoming the land speculation.

But, in the following years, land speculation could not be overcome because of pressures of housing demand of low and middle income groups lack of control of implementation of the Jansen plan inability to strike a balance between housing supply and demand caused by rapid population increase, increased land speculation.

Thus, Jansens plan lost its validity in a short time and some of Jansen’s suggestions like the industrial area, airport, Culture and Amele neighborhoods and bureaucratic site could not be realized.

As a result, Ankara missed the chance of development in contemporary urban development.

“Barakalaşma” up to the 1930s and “housing cooperatives and gecekondu” between the 1930s and 1940s were the solutions this unbalanced situation in housing supply and demand (Şenyapılı, 1985:69).

The State Housing Bank (Türkiye Emlak Bankası), The Social Security Association (Sosyal Sigortalar Kurumu) and various housing cooperatives undertook many projects directed chiefly towards middle or lower income groups. These efforts were, however, largely uncoordinated and inefficient in scope, especially, regarding the poorer of, major squatter problem emerged. Those unable to find housing through the semi-official channels described, or by their own individual legal efforts, had begun to build for themselves.

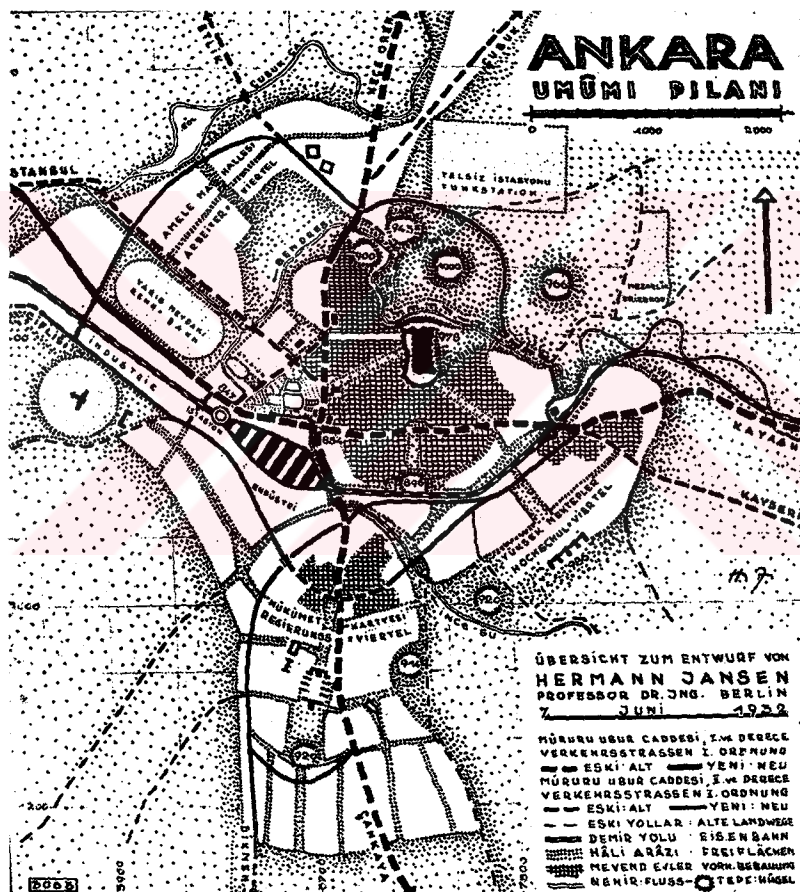


Figure 3.1. Jansen's Plan

Source: Jansen, 1937. p. 19

Thus, the 1940s and 1950s were very critical years since the solution to housing problems of low-middle income groups was changing from “barakalaşma” to “gecekondulaşma”. Gecekondu has started to enter the system and become a problem after these years.

The first legal Act to tackle the gecekondu problem of Ankara , No:5218, was passed in 1948 due to the increasing public pressure in the National Assembly. In spite of the absence of the word “gecekondu” in the Act No:5218, this Act empowered the Municipality of Ankara to undertake improvements in gecekondu areas and allot plots of land to potential gecekondu builders.

In the implementation process of this Act, areas where gecekondu were dense as Altındağ, Yenidoğan, Atıfbey, Mamak, Balkehriz, Seyranbağları, İncesu, Topraklık, were reserved for housing development and areas where gecekondu did not exist like Dikmen, Karabiber Village, part of Etlik, Çerçi brooks and İvedik road, were transferred to Municipality. All these areas were 1611 hectares and 650 hectares of them were covered by gecekondu (Tekeli, 1985: 93).

Jansen plan was not taken into account in the implementation of this Act. Indeed, new housing areas which were produced according to this Act had not been suggested by Jansen. These areas were mostly Treasury and Municipality land.

Following the Act No: 5218 (Ankara Belediyesine Arsa ve Arazisinden Belli Bir Kısmını Mesken Yapacaklara 2490 Sayılı Kanun Hükümlerine Bağlı Olmaksızın ve Muayyen Şartlarla Tahsis ve Temlik Yetkisi Verilmesi Hakkında Kanun), a parallel Act No: 5228 (Bina Yapımını Teşvik Kanunu) came into the force in the aim extending the Act 5218 through out of the country. This Act permitted The Housing Bank to extend financial credits against interest payments, provided the house was built within two years. Unfortunately, as might have been foreseen, these provisions helped middle income groups and led to the construction of new middle income group neighborhoods (Drakakis-Smith and Fisher, 1976:93).

These two Acts were very important, since their repercussions which are summarized below have been repeated with the passing of consecutive Acts (Şenyapılı, 1985:90):

- acceptance of gecekondu concept and legalization of existed gecekondus,
- transferring treasury land to local administration,
- implementation and construction of houses for low income groups as given a duty to municipalities,
- providing finance through bank credits.
- prevention of further gecekondu building

In 1949, a new Act No: 5431 (Ruhsatsız Yapıların Yıkıtılması ve 2290 Sayılı Belediye Yapı ve Yollar Kanununun 13üncü Maddesinin Değiştirilmesine Dair Kanun) was enacted as a result of growing gecekondu problem (Uzel, 1987:63). The main concern of this Act was gecekondu problem in general and illegal houses that were constructed by high income groups. Although its aim was to avoid illegal housing problem and demolish the houses which had been constructed up to that time, this aim could not be achieved perfectly.

In 1953, another Act No: 6188 (Bina Yapımını Teşvik ve İzinsiz Yapılan Binalar Hakkında Kanun) came into the force, when the problem extended in all big cities of the country. This Act was different the subsequent ones, in that, it was the first Act directed related to gecekondu problem. The aim was to produce land for housing and legalize the illegal houses constructed up to that time.

This Act laid down that state owned land for which a specific use had not been planned would be transferred over to the municipality to be used as housing sites. While the aim of increasing housing construction was at least in part achieved, there was an important side effect which gained great significance in time. Demolition of squatter houses was never, for various reasons, carried out fully; and therefore many existing squatters were able to claim the allocation of their site under this new law

(Drakakis-Smith and Fisher, 1976:93). During the later 1950s, as a result of the 1953 Act gecekondur number continued rising (Table 3.1.).

Table 3.1. Numbers Of Squatters And Squatter Population In Ankara (1950-1980)

| Years | Number Of Squatter | Squatter Population | % In City Population |
|-------|--------------------|---------------------|----------------------|
| 1950  | 12 000             | 62 000              | 21.8                 |
| 1960  | 70 000             | 364 000             | 56.0                 |
| 1966  | 100 000            | 520 000             | 57.4                 |
| 1970  | 144 000            | 748 000             | 60.6                 |
| 1975  | 202 000            | 1 156 000           | 64.9                 |
| 1978  | 240 000            | 1 300 000           | 68.4                 |
| 1980  | 275 000            | 1 450 000           | 72.4                 |

Sources: Keleş, Ruşen, 1982, Konut 81, pp. 23

In 1954, uncontrolled spatial development of the city, necessitated a new development plan. A development plan competition was held at international level. Nihat Yücel and Raşit Uybadin's plan won the competition. Their project was revised with regard to suggestions of jury and plan was approved in 1957 (Figure 3.2.).

Although the project was based on the balance of east-west and north-south axis, the emphasis was given to the north-south axis. This plan was restricted with the existing administrative boundary, therefore, excluded many gecekondur areas on the periphery. With the approval of the project, new boundaries of speculation were also determined. The earliest deterioration were realized on the proposed densities of the plan. Although Development Association of Ankara tried to keep development in the limits of project proposals, the pressure of unexpected population increase, political and legal situations which allow maximization of private entrepreneurship, and economic structure (by 1957 Turkey had external debts that caused high inflation) (Tekeli, 1982:70), which encourage investments to real estate, caused more accelerated, less organized, dense development and development of the city (Şenyapılı, 1985:155). Hence, the high rate of growth exceeded the ability of the authorities to plan areas on the periphery as well as in the center, and nearby villages were incorporated into the city.



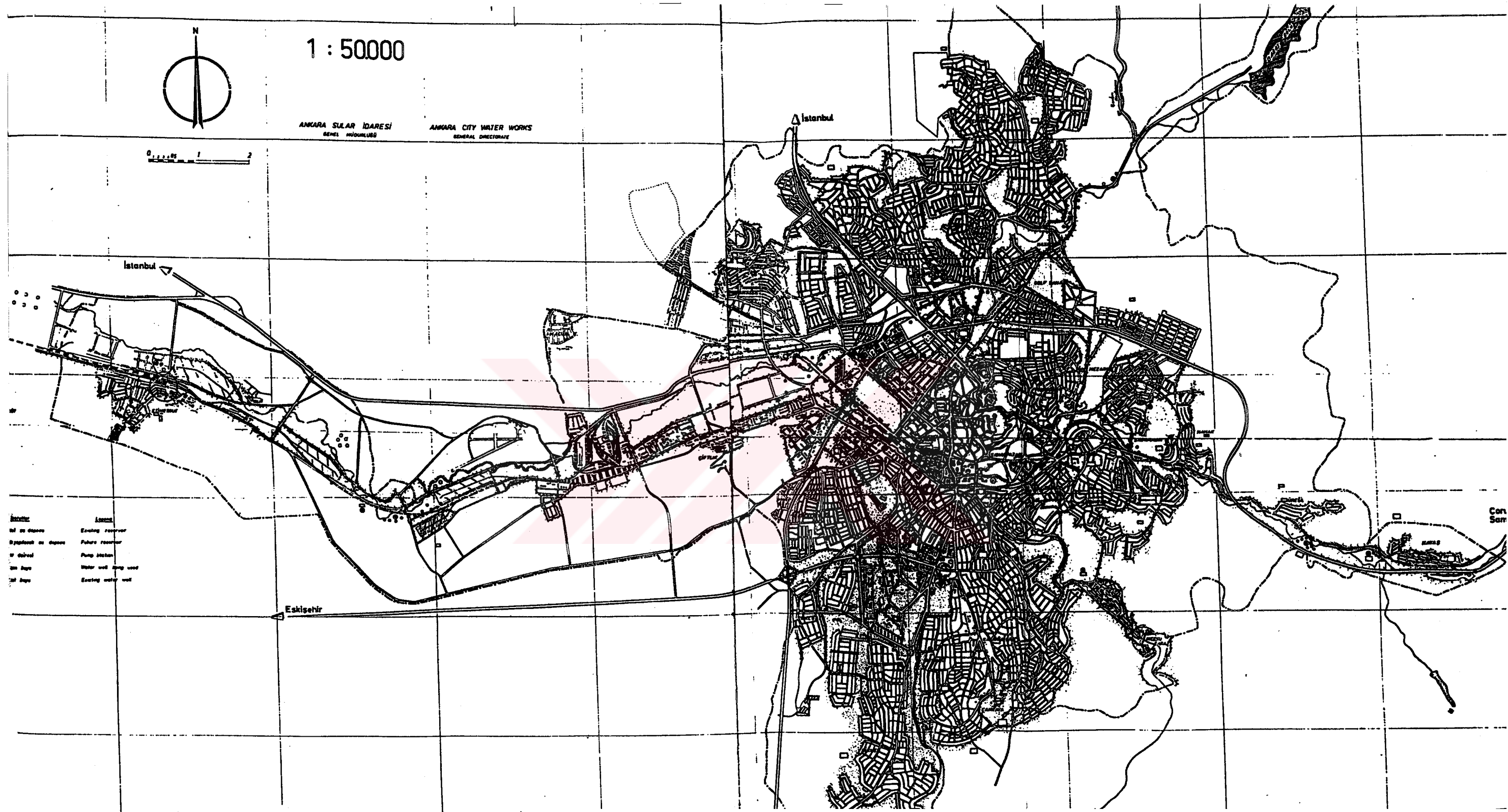


Figure 3.2. Yücel-Uybadin's Plan

Source: Şenyapılı, T. 1985

The population of the city reached 778 000 in 1960 and by 1963 almost 64% of the total housing consisted of gecekondus which accommodated nearly 60% of the population. With the impact of increasing population and density, social and technical infrastructure had become inadequate for the city.

Following the Act No: 6785 (*İmar Kanunu*), The Ministry of Housing and Development was set up in 1958. There were some development in Regional planning preparation with this Act and the first Regional Planning Organization was established in 1959. After a while, The First Five Years Development Plan was developed and development of big cities were prepared parallel to these development plans.

In 1959, an Act No:7367 was prepared to prevent gecekondu construction. Treasury lands, that are in municipal boundary, would be transferred to the municipalities, whether or not, they have development plans. This Act could not be successful either.

Acts passed up to the 1960s have three characteristics (Keleş, 1990:377):

- transferring treasury lands to municipalities,
- prohibition of gecekondus construction,
- legalization of all gecekondus constructed till these Acts came into the force.

As can be seen, these aspects still form the bases of current gecekondu policy.

At the beginning of 1960, with the impacts of establishment of State Planning Organization and preparing the first five years development plan, comprehensive framework approach became dominant. Within this, another Act No:775, was passed in 1966. Main policies of this Act, which is still in use, are improvement, clearance and prevention.

Improvement policy is implemented by local municipality and government corporations to the illegal houses whose condition can be improved. If there is no chance to improve the squatter, clearance policy is implemented.



Prevention policy can be grouped according to its time interval; short-term and long-term. Short-term prevention has both positive and negative effects. Negative effect of prevention mean; demolishing of the squatter house. Whereas, positive effect of prevention, involves supply of housing for low-income groups by government and local municipality (Keleş, 1990: 380).

In order to be successful, long-term prevention measures had to be implemented in not only illegal housing Acts, but also Acts that are about industrialization, employment and regional development development policies of the country (Keleş, 1990: 380).

Because of lack of real poverty standard in Turkey some problems appeared in the implementation of Act 775. Besides while by distributing plots to the low-income families who have not any property, limited public land was released by municipality for squatters (İnankul, 1993: 8). During the 1969-79, under the Law of Squatter Housing only 80.2 hectares of squatter housing areas had been cleaned. This was only 1.3.% of illegal development (TSSA, 1996:36).

Ankara Master Planning Bureau (ANPB) was set up in 1969 as an agency of the Ministry of Development and Settlement. Ankara Master Planning Bureau developed a plan with a 20 year perspective from 1970 to 1990 which was ratified in 1982. This plan was prepared for 3,6 million population in 1990 and major development a long the west corridor (EGO, 1987:9).

The Act, No:2805 (*İmar ve Gecekondu Mevzuatına Aykırı Olarak Yapılan Yapılara Uygulanacak İşlemler ve 6785 Sayılı İmar Kanununun Bir Maddesinin Değiştirilmesi Hakkında Kanun*), prepared in 1983, brought the first concept of “Improvement Plan” done as:

“It is an urban development condition drawn on existence maps, that determines building regulations with the aim of bringing balanced, regular and

healthy conditions for unhealthy, uncontrolled built up areas or building blocks in clearly defined borders with the consideration of existing conditions”.

This Act divides illegal housing into three groups in terms of selecting operation;

- houses to be preserved,
- houses to be preserved by improvement,
- houses to be demolished.

Ankara Municipality determined 22 improvement plan areas according to this Act. The study of Improvement Master Plan scaled 1/5000 was started by Municipal planning team.

In 1984, the most important legalization Act no: 2981 (*İmar ve Gecekondu Mevzuatına Aykırı Olarak Yapılan Yapılara Uygulanacak İşlemler ve 6785 Sayılı İmar Kanununun Bir Maddesinin Değiştirilmesi Hakkında Kanun*), following the Act No:2805, was enacted at the same time with local election. For this reason this Act was presented as an election favor by some parliaments (Uzel, 1987:121).

Illegal housing is divided into three groups as; houses to be preserved, houses to be preserved by improvement and houses that can not derive a profit from this Act. In summary, if gecekondu owners, whose gecekondu had been constructed before 2.6.1991, applied to Municipality or governership in six months, they would receive Tapu Tahsis Belgesi and the transformation of Tapu Tahsis Belgesi, which was first introduced by this Act, to title-deed will be possible , if an improvement plan was implemented (İnankul, 1993: 13).

Greater Ankara Municipality was established through the Act No:3030 to prepare and implement urban development plans. Metropolitan Municipality of Ankara was divided into five district municipalities: Altındağ, Çankaya, Keçiören, Mamak, Yenimahalle (after 1990 Sincan and Etimesgut) and Greater Municipality of Ankara.

According to the Act No:3030 (*Büyükşehir Belediyelerinin Yönetim Hakkında Kanun Hükmünde Kararnamenin Değiştirilerek Kabulü Hakkında Kanun*), while master development plan would be prepared by Greater Municipality of Ankara, implementation and improvement plans scale 1/1000 would be under the responsibility of district municipalities. There appeared lack of qualified staff for planning both in Greater Municipality or in district municipalities that affected the beginning period of implementation planning.

In 1985, a structural planning scheme was prepared for the year 2015 by a scholar team from METU. The population of Ankara expected to reach nearly 4,5 million in 2015, with a two fold increase in 25 years (EGO, 1987:23). Decentralization of Ankara was the main policy of this proposal as a solution for the urban problems. Gecekondu areas in this scheme were shown as residential areas or build-up areas (Figure 3.3.).

As these studies continued, another Act, No:3290 came into the force in 1986. Illegal housing concept was enlarged with this law. Partially offices and houses transformed from houses were included to the definition of illegal housing.

In the same year Act No:3366 was enacted to enlarge the illegal housing definition. For example; person whose squatter was located in a coast, in a military zone, in the expropriation area of highway could be given a plot from improvement zone or close to the improvement zone.

The last Act, related to gecekondu problem, was the Act No:3414 (*775 Sayılı Gecekondu Kanununun Bazı Hükümlerinin Değişikliği Hakkında 03.05. 1985 Tarih ve 247 Sayılı Kanun Hükmünde Kararnamenin Değiştirilmesinin Kabulü Hakkında Kanun*), was passed in 1986. “Until this Act, usually, gecekondu which were built on state owned land were legalized, but from there on the land owned privately has also became unprotected. The responsibility of Provincial and Greater City Municipality authorities, in the process of the gecekondu related implementations, were completely

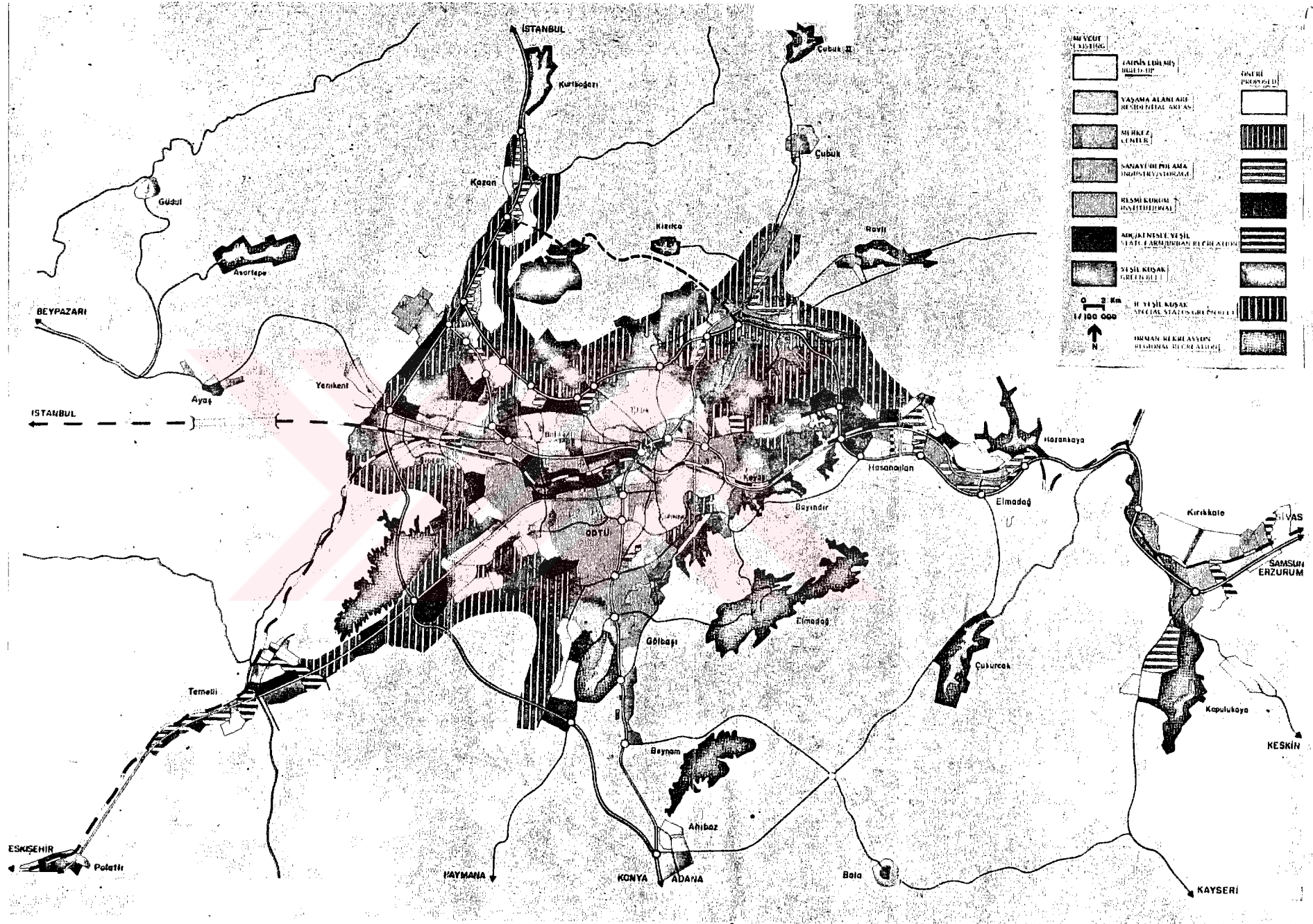


Figure 3.3. The Scheme of Ankara 2015

Source: Tekeli, İ. et al., 1987.

transferred to local district municipalities. Thus, greater city municipalities started to bear only the responsibility of coordination. The most important effect of this law was on the vast freedom it had offered in the trade and transfer of gecekondu” (Karaaslan, Kumbaracıbaşı, Erol, 1994: 171).

The Act No:775 is still in effect since 1966. If we have a look the quantitative comparisons of implementations during these thirty years, failure in implementation of the Act can be observed. “627 squatter prevention zones in city center with 17 679 hectares were determined and approximately 50 000 houses were constructed” (Bayındırlık İskan Bakanlığı, 1993:133). On the other hand, “808 improvement zones (16 174 hectare) were declared, convenient infrastructure was installed to these areas and 202 clearing zones (1325 hectare) were cleared from gecekondu in the same period” (Habitat II, 1996:28).

With respect to all these explanations above theoretical and Practical dimensions of improvement plans, that were started in mid 1986, will be given in the next chapter.



Table 3.2. Targets and Results of Acts Related to Squatter Settlement Prevention and Improvement

| ACT NO | DATE OF APPROVAL | TARGET   | RESULT   |
|--------|------------------|--|--|
| 5218   | 14.06.1948       | *empower the Municipality to undertake improvements in gecekondu areas<br>*allot parcels of land to potential gecekondu builders | *dense gecekondu areas were reserved for housing development<br>*areas where gecekondu did not exist were transferred to Municipality                |
| 5228   | 28. 06. 1948     | *extend the act 5218 throughout of the country<br>*supply financial credits for housing  | *financial credit provisions helped middle income groups instead of low income groups  |
| 5431   | 06.06.1949       | *avoid illegal housing problem<br>*demolish the houses which had been constructed upto that time                                 | *could not be achieved perfectly   |
| 6188   | 24. 07. 1953     | *produce land for housing<br>*legalize the illegal houses up to that time  | *state owned land was transferred over to the municipality to be used as housing sites<br>*demolition of squatter houses was never carried out fully |
| 775    | 20. 07. 1966     | *improvement, clearance and prevention of squatter houses  | *although 1.3% of squatter housing areas had been cleaned, this aim could not be achieved perfectly  |
| 2805   | 16. 03. 1983     | *preservation, improvement and demolition of squatter houses   | *Ankara Municipality determined 22 improvement plan areas  |
| 2981   | 24. 02. 1984     | * preservation and improvement of squatter houses  | *Tapu tahsis belgesi and title-deed was given to squatter owner  |
| 3290   | 22. 05. 1986     | *enlargement of illegal housing concept  | *offices and houses transformed from houses were included to the definition of illegal houses  |

Source: Related Acts

## CHAPTER 4

### IMPROVEMENT PLANS

This chapter deals with the term of improvement from the view point of solution alternatives to squatter problems of different countries and give more deatiled informattion about squatter improvement in Turkey.

#### 4.1. Squattter Improvement

The term “squatter improvement” has different meanings in each country, but in general although gradation is meant by improvement in developed countries, in Turkey the very term involves and implies structural change. Thus, different examples from different countries will be given there:

In African countries programs dealing with slums and uncontrolled developments improvement have generally taken one of the following forms (UN, 1971:30):

- Direct action: demolition and replacement; demolition without replacement
- Indirect action: provision of better homes, inducing slum-dwellers to move, roof loans, site and service schemes, new towns.

Asian and Far Eastern countries proposed solutions based only on needs without considering the actual capability of the people to bear the costs would simply remain in the realm of ideas that never materialize up to the 1970s (UN, 1971:52). But after that time, a new concept of slum upgrading took place of the earlier approach of slum clearance, in all of the developing countries. One example from Asian countries

Thailand, concentrated more on environmental degradation and improve the living conditions by ensuring access to service at least at the minimum acceptable level (UN, ESCAP, 1984: 6).

The term squatter improvement in Latin American countries is generally based on living standards and neighborhood improvement programs (UN, 1971: 78). The Programa Nacional de Desarrollo de la Cominadad, which has implemented in Venezuela, has achieved important results in organizing and training the inhabitants of the squatters to improve their own living standards. Some illegal housing districts on the other hand are consolidated. Other districts are in the process of being formed in an orderly manner on suitable land with the prospect of services in the nearfuture. Consolidated districts usually have the minimum services (water, sewerage, electricity) with housing constructed of sturdy material and attaining a certain level of comfort (UN, 1971: 54).

Experiences of Middle Eastern countries; the main alternative is the provision of public utilities and community facilities, such as drainage, electricity, piped water, paved streets, playgrounds and parks. In Baghdad, Iraq, developed plots of land have been provided to potential settlers, with assistance in building houses. In Lebanon also, the investment program is directed chiefly towards sanitation, water-supply, roads and other infrastructural facilities. In Saudi Arabia, the stress has been on housing improvements through provision of water and electricity, sewerage system and paving of roads. The Ministry of Interior, which is responsible for municipal affairs, has been a major recipient of Government allocations and has expended a great proportion of these funds on municipal improvement services in the form of community facilities.

As can be observed all these experiences from different countries, improvement schemes generally include provision of infrastructural and social services. Also, in some countries educational facilities are included in improvement schemes.



Moreover, in recent years, improvement projects are paid more attention instead of clearance and redevelopment because of its positive physical and socio-economical effects.

As a conclusion remark of this explanations, Turkey has a unique approach in improvement of squatter settlements. In addition to improve the social and technical infrastructural services the most important theme of the improvement projects are to legalize these illegal settlements and to transfer the rents which created with improvement plans to squatter owners and building contractors.

Now the major aspects of squatter improvement in Turkey will be given from the view point of related acts.

## **4.2. Theoretical Dimension Of Improvement Plans**

### **4. 2. 1. Definition of Improvement Plan**

The first definition of improvement plan was made in the Act No:2805 as below :

“It is an urban development condition drawn on existence maps, that determines building regulations with the aim of bringing balanced, regular and healthy conditions for unhealthy, uncontrolled built up areas or building blocks in clearly defined borders with the consideration of existing conditions”.

### **4. 2. 2. Definition of Improvement Planning Areas**

According to the Acts No: 2981 and No:3290 improvement plans are made in (Article 20);

- gecekondü areas that shows a settlement character,

- plots under shared ownership on which settlement exists contrary to the development Act,
- development plan areas on which settlement existed contrary to the development Act,
- Parceled areas for which improvement plans can not be done.

#### **4. 2. 3. Determination of Improvement Plan Areas and Boundaries**

Improvement Plan areas are determined by either municipalities inside the municipal boundaries and neighboring areas, or governance outside the boundary of municipality and neighboring areas. On the other hand, boundary of settlements that are mentioned above (Article 20) are accepted as the boundary of improvement plan (Article 21).

#### **4. 2. 4. Preparation of Improvement Plans**

Improvement plans are prepared by city planners, architects or Yeminli Teknik Büros, in the municipalities or governance. Any group of planners (A, B, C, D or E) can prepare improvement plans, regardless of the size of the improvement planning area (Article 22).

#### **4. 2. 5. Important Points Taken into Account while preparing Improvement Plans**

There are some criteria which should be taken into account while preparing improvement plans (Article 23):

- a) drawing improvement plans on existence maps. If there is no existence map, first of all it must be prepared,
- b) preparing a geological report that shows whether the area is suitable for settlement or not,
- c) preparing cadastral map (if exists),
- d) drawing the buildings whose recourse was done according to Act.

- e) determining the buildings that are excluded by the Act in planning areas,  
f) determining the boundaries of improvement plan according to the a, b, c, d and e,  
g) determining the building conditions and the width of the roads,  
h) in the determination of building conditions, the existing infrastructure are considered. In addition, for the planning area, the social and technical infrastructure are provided by taking the additional population into consideration,  
i) preparing planning notes and legends,  
j) determination of other areas (except housing areas)  
k) using the drawing techniques of “Act of preparing and changing criteria of improvement plan”  
l) determining the scale and coordinates, drawing the north sign.

#### **4. 2. 6. Rectification of Improvement Plans**

After approval by municipalities or by governance, plans could be implemented.

#### **4. 2. 7. Organization and Finance of Improvement Plans**

Gecekondu Act No: 2981 involves financial support for people who need shelters. Financial measures of the Act are divided into two groups: gecekondu funds under the control of municipality and gecekondu funds under the control of Toplu Konut ve Kamu Ortaklığı İdaresi.

Gecekondu funds under the control of municipality is different from municipalities' funds which are a part of income taxes given to municipalities by İller Bank.

The major sources of fund in the Act are as below (Article 12):

- revenues from land sales and renting,
- financial participation of those who are using the public services in gecekondu areas,

- a share from municipal budget every year (not less than 1%),
- surplus of aid to soldier's families,
- revenue from The Ministry of Development and Settlement and government budget,
- repayments of credits and their interests given by fund,
- interest revenues of money that is accumulated in the fund,
- revenues and grants coming from other Acts.

The revenues of this fund can be allocated for (Article 13):

- supplying land, constructing public house, guest house and nucleus house,
- providing required public services and institutional expenditures (such as roads, water, electricity) of gecekondü prevention and improvement areas,
- determining the gecekondü areas, drawing land-use maps and buying land that can not be supplied by municipal budget.

The second gecekondü fund is under the control of TKKOİ and the major sources of this fund can be explained as below (Article 14):

- compensation from government budget to The Ministry of Development and Settlement for this aim,
- Partnership shares that are paid by housing credit buyer to Emlak Bank,
- revenues from land sales and renting,
- repayments of credits and their interests given by fund,
- interest revenues of money that is accumulated in the fund,
- revenues and grants coming from other Acts,
- financial supports and grants.

The main expenditures of this funds are (Article 15):

- works that could not be done by municipality or expected to be done by government such as; map, photograph buying and evaluating, planning works, buying technical tools etc.
- buying land whether settled or not, expropriation, construction or improvement of houses,
- providing required public services and institutional expenditures (such as roads, water, electricity) of gecekondu prevention and improvement areas,
- assisting to municipalities to implement this Act.

### **4. 3. Practical Dimension of Improvement Plans**

#### **4. 3. 1. Implementation Problems of Improvement Plans**

Implementation problems of improvement plans can be classified into 3 groups: lack of integration between macro and micro scales, finance and persuading people to accept the implementation of improvement plans.

Improvement plans are made with respect to existing data. No provision is made for taking macro scale planning into account while preparing improvement plans. Thus, the interrelation, integration and complementary between the proposals of two plans can not be constructed.

Finance problem is another bottleneck for squatter areas. Although Act No:775 implicates some financial sources, these supports are not sufficient for the development of squatter areas.

Persuading people to accept the implementation of improvement plans is a very crucial problem. Expectations of getting more share in rent, makes persuasion of squatter people more difficult.

#### **4. 3. 2. Different Approaches for Implementations of Improvement Plans**

Two different implementation approaches may be given as examples of practical dimension of improvement planning work; GEÇAK which is project of Çankaya Municipality and YEŞKEP which is of Yenimahalle Municipality.

GEÇAK, that is “from squatter to contemporary house”, is accepted as a transformation project of squatter rather than an improvement plan (Kurttaş, 1996:83). It uses mass housing cooperatives to realize the transformation. The advantages of this type of solution are; financial problem is solved by cooperative corporations and more social and technical infrastructure can be developed in comparison to improvement plans.

YEŞKEP, Şentepe housing acquirement project, is based on individual housing production. As this area did not attract the attention of “Yap-satçı”, this type of approach was selected. This project is important in that the role of technician changes. The architectural design assessment has been given to the squatter owners who want to improve their squatters. This type of approach is more populist whereas the sufficient technical and social infrastructure is limited by existing urban tissue.

Indeed, no real improvement in squatter areas can be made unless direct and effective government Action is taken. In almost all developing countries, governments regard investment in the social services (including housing) as a waste of valuable investment capital which could be more useful in industrial development. To a certain extent this is understandable, but to dismiss investment in housing and the like as mere social overheads is a serious error (Drakakis-Smith and Fisher, 1976:97). The social, economic and political benefits to be gained from such investment have been fully discussed elsewhere (Smith, 1972; Donnison, 1967; Strassman, 1970); suffice it to say that, in the long term, the costs to the city can be recouped many times over.

Good organization is a tool for persuading squatter people. In addition, it is essential to have strong communicational links with the people immediately involved in public

housing schemes; representatives from the urban poor not of them. Closer relationships between the people and the administrators will also enable the public housing program to meet real needs in pragmatic ways (Drakakis-Smith and Fisher, 1976:98). For example “Cooperation for the Improvement of Zafertepe” is the first organization related to the treatment of living conditions of squatter areas. This cooperation, which was established with the assistance of Kent-Koop in 1987, gathered squatter people under the aim of supplying social and physical needs of these areas and find the collective solution alternatives (Göksu, 1987:10). As a first step, squatter people determined the works that they can do. After that, planning, architectural and engineering projects are developed and implementation tools are supplied by Kent-Koop experts. This project presents an important cooperation model that central and local management can use it in urban development.

The Act No:2981 was the starting point of a new period as legalization of all illegal- unauthorized houses has been the main aim and thus, squatting was awarded by allocation of shares from the increase in urban rent due to improvement plans (Türksoy, 1996:9).

## **CHAPTER 5**

### **EMPIRICAL STUDY**

In this Chapter methodology, hypotheses and results of empirical and case studies related to improvement plans prepared for in Ankara are given.

#### **5. 1. Methodology and Hypotheses**

The main purpose of this study is to find out gains and losses of squatter areas arising from implementation of improvement plans.

The basic question is; “What are the socio-demographic, physical, spatial, social and technical infrastructural, environmental changes brought by implementation of improvement plans and how can these be categorized as losses and gains to the urban area in general”.

The scope of this study is within the boundary of Ankara Greater Municipality. All district municipalities that have improvement plans are examined in 1984-1989 and 1990-1996 periods. Sincan Municipality is not included in this study since there has been no improvement planning implementation there.

Following the literature survey to structure the theoretical framework of the study, all improvement planning data for 188 neighborhood has been collected from district municipalities in form of plans and/or reports. A general review of the squatter



problem has been derived from collected data. The percentage of existing squatter population in total urban population has been examined for each district and for the total of Ankara to emphasize the importance of gecekondu problem of the city.

After this general review of the problem, detailed studies were conducted. All improvement plans made since 1984 have been analyzed to understand their impact on squatter areas. Existing and proposed space standards have been compared. Changes in population densities, land prices and in social and technical infrastructure (education, health, commercial, social cultural areas) have been studied to see the differences between existing and proposed values. While existing values of squatter areas are gathered from statistical books and SIS, proposed values have been collected from improvement plan reports or directly calculated from improvement plans for each squatter neighborhood.

An important element, distance from city center, has been used in all analyses to observe the impact of improvement plans on changing spatial and economical characteristics of squatter areas.

Following this empirical study, another case study was conducted in the 4<sup>th</sup> Street in Yıldız neighborhood to obtain more detailed results related to squatter areas. The reason for the selection of the 4<sup>th</sup> Street as a case study area is the transformation process of it from squatter house to apartment house is almost all completed. Thus, the comparison between before and after improvement plan would be more realistic. Interviews were made with squatter owners (the first land owners), building contractors and new residential units owners, who are the actors of the transformation process, in order to analyze the socio-demographic changes in this area. In addition to these interviews changes in property ownership was researched from Çankaya municipality.

Two limitations were met during the study. In some cases, data could not be obtained from district municipalities. Thus, some of the analyzes have been done without these values. While calculating existing population density boundary of neighborhood has

been taken as the boundary of area of the neighborhood. However, in some of the neighborhoods, in spite of the large area encompassed within the boundary, the neighborhood was settled in a small part of the area. So, densities of these neighborhoods have been calculated only for the settled area, not for the total area.

## 5. 2. Results of Empirical Study

### 5. 2. 1. Population, Area And Density

Table 5.1. shows the percentage of squatter population covered by the improvement plans in total urban population of districts. It is observed from the Table that, although the percentage of squatter population in total urban population decreased in five district municipalities, this percentage increased in Çankaya Municipality. Two types of improvement plan have been implemented in Çankaya Municipality since the Act 2981. The first type improvement plan, which was called A Type Improvement Plan was prepared only to solve the property problems in these areas. After 1990, in addition to new improvement plans for all squatter areas that had A type of Improvement Plans, B Type Improvement Plan was made to improve the living conditions of these areas. Thus, increase in the percentage of squatter population in total urban population is as a result of this two step planning approach.

Table 5.1. The Percentage of Squatter Population with Approved Improvement Plans in Total Urban Population of Districts.

| DISTRICT     | Total Urban Population |                | Existing Squatter Population with Improvement Plan |               | % of Squatter Pop. in Total Urban Pop. |             |
|--------------|------------------------|----------------|--|---------------|--|-------------|
|              | 1985                   | 1990           | 1985   | 1990          | 1985                                   | 1990        |
| Altındağ     | 403781                 | 417616         | 140862   | 137392        | 34.9                                   | 32.9        |
| Çankaya      | 665128                 | 712304         | 149945   | 238268        | 22.5                                   | 33.5        |
| Etimesgut    | -                      | 69960          |  | 57896         | -                                      | 82.8        |
| Keçiören     | 433559                 | 523891         | 148234   | 155065        | 34.2                                   | 29.6        |
| Mamak        | 371904                 | 400733         | 203353   | 118050        | 54.7                                   | 29.5        |
| Yenimahalle  | 360573                 | 343951         | 215196   | 10502         | 59.7                                   | 3.1         |
| <b>TOTAL</b> | <b>2234945</b>         | <b>2468455</b> | <b>859575</b>                                      | <b>719163</b> | <b>38.4</b>                            | <b>29.1</b> |

Source:1985 and 1990 Census of Population, SIS and Area study

The percentage of squatter population in total urban population of Yenimahalle Municipality is the highest one with 59.7 %, on the other hand the lowest value is 22.5 % in Çankaya Municipality in 1985. If we examine the 1990s' situation, the highest percentage of existing squatter population is 82.8 % in Etimesgut Municipality and the lowest value is 3.1 % in Yenimahalle Municipality. This rapid decrease in the values of Yenimahalle Municipality may be explained by the fact that most of the planning work in existing squatter areas were completed in 1984-1989 period. Etimesgut Municipality, which was established as a municipality in 1990, has the highest percentage of squatter population in total urban population during 1990-1996 period according to improvement plans.

Table 5.2. shows the existing and proposed situations of squatter areas of Ankara in 1984-1989 and 1990-1996 periods. As can be seen from the Table differences between existing and proposed situations and differences between the periods are very high.

On the other hand, Yenimahalle Municipality has the highest population density changes with 327 %; its density is increased from 67 person/ha to 286 person/ha in 1990-1996 period. This value is also the highest value in both periods. Conversely the lowest population density changes is 113 % in Altındağ Municipality in 1990-1996 period; from 97 person/ha to 255 person/ha. Consequently rise in the population and density values is observed not only between existing and proposed values but also in two periods.

Table 5.2. Existing And Proposed Populations And Densities For Squatter Settlements In Ankara

| District     | Squatter Population |                |               |                |               |               | Squatter Area (ha) |               |               |            |               |            | Density (person/ ha) |            |               |          |     |     | Changes in Density % |  |
|--------------|---------------------|----------------|---------------|----------------|---------------|---------------|--------------------|---------------|---------------|------------|---------------|------------|----------------------|------------|---------------|----------|-----|-----|----------------------|--|
|              | 1984-1989           |                | 1990-1996     |                | 1984-1989     |               | 1990-1996          |               | 1984-1989 (a) |            | 1990-1996 (b) |            | 1984-1989 (a)        |            | 1990-1996 (b) |          | (a) | (b) |                      |  |
|              | Existing            | Proposed       | Existing      | Proposed       | Existing      | Proposed      | Existing           | Proposed      | Existing      | Proposed   | Existing      | Proposed   | Existing             | Proposed   | Existing      | Proposed |     |     |                      |  |
| Altındağ     | 140862              | 297430         | 137392        | 202000         | 1439.7        | 1168.7        | 796.7              | 548.5         | 97            | 255        | 173           | 368        | 163                  | 113        |               |          |     |     |                      |  |
| Çankaya      | 149945              | 272726         | 238268        | 301003         | 1815.4        | 1135.2        | 2201.5             | 1064.7        | 83            | 240        | 108           | 272        | 189                  | 152        |               |          |     |     |                      |  |
| Etimesgut    | -                   | -              | 57896         | 267080         | -             | -             | 584.4              | 641           | -             | -          | 99            | 386        | -                    | 290        |               |          |     |     |                      |  |
| Keçiören     | 148234              | 403115         | 155065        | 360773         | 1689.9        | 1245.9        | 1379.3             | 1015.2        | 87            | 324        | 112           | 355        | 272                  | 217        |               |          |     |     |                      |  |
| Mamak        | 203353              | 455553         | 118050        | 257052         | 2701.2        | 2576          | 1681               | 966.7         | 75            | 177        | 70            | 266        | 136                  | 280        |               |          |     |     |                      |  |
| Yenimah      | 215196              | 528666         | 10502         | 9650           | 961.1         | 837.7         | 157.5              | 33.7          | 223           | 631        | 67            | 286        | 183                  | 327        |               |          |     |     |                      |  |
| <b>TOTAL</b> | <b>857590</b>       | <b>1957490</b> | <b>717173</b> | <b>1397558</b> | <b>8607.3</b> | <b>6963.5</b> | <b>6800.4</b>      | <b>4269.8</b> | <b>100</b>    | <b>281</b> | <b>106</b>    | <b>327</b> | <b>181</b>           | <b>209</b> |               |          |     |     |                      |  |

Source: Field Survey

For more detailed information, existing and proposed values with improvement plans of each neighborhood will be given.

Table 5.3. Improvement Plans in Altındağ Municipality in 1984-1989 Period

| NEIGHBORHOOD | EXISTING      |               |                | IMPROVEMENT PLAN |               |               |                |                    |
|--------------|---------------|---------------|----------------|------------------|---------------|---------------|----------------|--------------------|
|              | Pop (1985)    | Area (ha)     | Density (p/ha) | Date             | Pop           | Area (ha)     | Density (p/ha) | Change in Density% |
| Karapürçek   | 1677          | 85            | 20             | 1989             | 7500          | 85            | 88             | 340                |
| F.Çelik      | 38725         | 386.3         | 100            |                  |               |               |                | 161                |
| Başpınar     | 19207         | 164           | 117            | 1989             | 68500         | 283           | 241            |                    |
| Beşikkaya    | 9835          | 267.3         | 38             |                  |               |               |                |                    |
| Doğantepe    | 13230         | 67.5          | 196            |                  |               |               |                |                    |
| Çamlık       | 6650          | 35.9          | 185            | 1989             | 99900         | 370           | 270            | 400                |
| Beşikkaya    | 9835          | 267.3         | 38             |                  |               |               |                |                    |
| Plevne       | 2245          | 18.7          | 120            | 1989             | 7500          | 17            | 441            | 267                |
| Solfasol     | 2627          | 111.8         | 24             |                  |               |               |                | 569                |
| Yıldıztepe   | 9930          | 58.1          | 171            | 1987             | 38000         | 158           | 241            |                    |
| Güneşevler   | 11161         | 51.6          | 216            |                  |               |               |                |                    |
| Güneşevler   | 11161         | 51.6          | 216            |                  |               |               |                | 75                 |
| Gülpinar     | 8283          | 71.9          | 115            |                  |               |               |                |                    |
| Doğu         | 4155          | 34.4          | 121            | 1987             | 52380         | 193           | 271            |                    |
| Yıldıztepe   | 9930          | 58.1          | 171            |                  |               |               |                |                    |
| Güneşevler   | 11161         | 51.6          | 216            | 1987             | 11800         | 40.5          | 291            | 36                 |
| Ali Ersoy    | 8073          | 38.3          | 211            |                  |               |               |                |                    |
| Yeşilöz      | 5064          | 48.4          | 105            | 1987             | 3450          | 6.1           | 566            | 474                |
| Yeşilöz      |               |               |                |                  | 3900          | 6.1           | 637            |                    |
| Başpınar     | 19207         | 164           | 117            | 1989             | 4500          | 10            | 450            | 285                |
| <b>TOTAL</b> | <b>140862</b> | <b>1439.7</b> | <b>97</b>      |                  | <b>297430</b> | <b>1168.7</b> | <b>255</b>     | <b>163</b>         |

Sources: Field Survey

Sources of Population: 1985 and 1990 Census of Population, SIS

Source for "Existing Area": Tekeli et. al., 1987, pp.251-254

Tables 5.3. and 5.4. show the approved improvement plans in Altındağ Municipality in 1984-1989 and in 1990-1996 periods. As can be observed from the Tables, average existing population densities were 97 p/ha in 1984-1989 period and 173 p/ha in 1990-1996 period. On the other hand, proposed population densities were 255 p/ha in 1984-1989 period and 368 p/ha in 1990-1996 period. Average changes in population density was 163% in 1984-1989 period and 113% in 1990-1996 period.

Table 5.4. Improvement Plans in Altındağ Municipality in 1990-1996 Period

| NEIGHBORHOOD  | EXISTING      |              |            | IMPROVEMENT PLAN |               |              |            |                    |      |       |     |     |     |
|---------------|---------------|--------------|------------|------------------|---------------|--------------|------------|--------------------|------|-------|-----|-----|-----|
|               | Pop (1990)    | Area (ha)    | Density    | Date             | Pop           | Area         | Density    | Change in Density% |      |       |     |     |     |
| Önder         | 12738         | 117.2        | 109        | 1993             | 5000          | 93           | 54         | -70                |      |       |     |     |     |
| Hacılar       | 12824         | 43.8         | 293        |                  |               |              |            |                    |      |       |     |     |     |
| Ulubey        | 11478         | 47.1         | 244        |                  |               |              |            |                    |      |       |     |     |     |
| Alemdağ       | 9232          | 57.2         | 161        | 1991             | 95000         | 210          | 452        | 184                |      |       |     |     |     |
| Battalgazi    | 9639          | 87.5         | 110        |                  |               |              |            |                    |      |       |     |     |     |
| Hacılar       | 12824         | 43.8         | 293        |                  |               |              |            |                    |      |       |     |     |     |
| Önder         | 12738         | 117.2        | 109        |                  |               |              |            |                    |      |       |     |     |     |
| Ulubey        | 11478         | 47.1         | 244        |                  |               |              |            |                    |      |       |     |     |     |
| Gültepe       | 5223          | 71.9         | 73         | 1990             | 35000         | 92.5         | 378        | 223                |      |       |     |     |     |
| S. Somuncu.   | 6062          | 25.0         | 243        |                  |               |              |            |                    |      |       |     |     |     |
| Gökçeneffe    | 1938          | 6.2          | 313        |                  |               |              |            |                    |      |       |     |     |     |
| Doğansehir    | 2638          | 5.0          | 528        |                  |               |              |            |                    |      |       |     |     |     |
| I. S. Murat   | 4297          | 87.6         | 49         |                  |               |              |            |                    |      |       |     |     |     |
| Çalışkanlar   | 8262          | 46.9         | 176        |                  |               |              |            |                    |      |       |     |     |     |
| Aktaş         | 2243          | 10.9         | 206        |                  |               |              |            |                    | 1991 | 55000 | 103 | 534 | 123 |
| Atilla        | 3347          | 18.8         | 178        |                  |               |              |            |                    |      |       |     |     |     |
| Cemalbey      | 4311          | 15.6         | 276        |                  |               |              |            |                    |      |       |     |     |     |
| Çandarlı      | 1530          | 3.1          | 494        |                  |               |              |            |                    |      |       |     |     |     |
| Engürü        | 1838          | 3.1          | 593        |                  |               |              |            |                    |      |       |     |     |     |
| Fatih         | 2952          | 3.7          | 798        |                  |               |              |            |                    |      |       |     |     |     |
| Fermanlılar   | 1446          | 3.1          | 466        |                  |               |              |            |                    |      |       |     |     |     |
| Gültepe       | 5223          | 71.9         | 73         |                  |               |              |            |                    |      |       |     |     |     |
| Hayri Akman.  | 2486          | 3.7          | 672        |                  |               |              |            |                    |      |       |     |     |     |
| Hürriyet      | 2431          | 4.6          | 528        |                  |               |              |            |                    |      |       |     |     |     |
| Kartallar     | 3388          | 3.8          | 892        |                  |               |              |            |                    |      |       |     |     |     |
| K. Zeytinoğlu | 1913          | 6.2          | 309        |                  |               |              |            |                    |      |       |     |     |     |
| Orhan Gazi    | 2823          | 9.3          | 304        |                  |               |              |            |                    |      |       |     |     |     |
| Özgürlük      | 1876          | 6.2          | 303        |                  |               |              |            |                    |      |       |     |     |     |
| Sinan Paşa    | 1418          | 4.3          | 330        |                  |               |              |            |                    |      |       |     |     |     |
| Sokullu       | 1635          | 6.2          | 264        |                  |               |              |            |                    |      |       |     |     |     |
| Yavuz Selim   | 937           | 3.7          | 253        |                  |               |              |            |                    |      |       |     |     |     |
| Yiğitler      | 2204          | 5.0          | 441        |                  |               |              |            |                    |      |       |     |     |     |
| Baraj         | 14283         | 90           | 159        | 1990             | 12000         | 50           | 240        | 674                |      |       |     |     |     |
| <b>TOTAL</b>  | <b>137392</b> | <b>796.7</b> | <b>173</b> |                  | <b>202000</b> | <b>548.5</b> | <b>368</b> | <b>113</b>         |      |       |     |     |     |

Sources: Field Survey

Sources of Population: 1985 and 1990 Census of Population, SIS

Source for "Existing Area": Tekeli et. al., 1987, pp.251-254

There are neighborhoods that have extremely different values. For example; Baraj has the highest population density changes (674%). Its population density increased from 31p/ha (which was the existing value) to 240 p/ha with improvement plan. According

to the interviews with the planners in Altındağ Municipality, existing squatter population, which were settled in unsuitable housing areas, were transferred to more suitable housing areas in the same neighborhood with improvement plans. Thus, more population had to be settled in the planning area that means more population density for this neighborhood.

The lowest value in 1990-1996 period was in Önder, Hacılar and Ulubey Improvement Plan. While existing population density was 178 p/ha, density decreased to 54 p/ha with Improvement Plan. The explanation given by the Municipality is that; these neighborhoods are close to Sıteiler Industrial Area and most of the squatters were transferred to the industrial use, thus, population density was decreased -70%.

As can be seen from the Table 5.5., average existing population density was 83 p/ha and proposed population density was 240 p/ha in 1984-1989 period in Çankaya Municipality. Thus, average change in population density was 189% in this period.

Maximum population density change in 1984-1989 period was 525% in Kırkkonaklar in Çankaya Municipality. Population density of this neighborhood increased from 48 p/ha to 300 p/ha with the proposal of Improvement Plan. According to the interviews with the planners in Çankaya Municipality, this neighborhood is close to city center that means proximity to social and technical infrastructure, because of this potential the Improvement Plan proposed high population density for this area. In contrast, the lowest value in this period was in İmrahor I (Zafertepe) Improvement Plan (-71%). While existing population density was 409 p/ha , this value declined to 120 p/ha with Improvement Plan. The main reason for this was the protection of the valley according to the Municipality. The valley was cleared from squatters and transformed in to green area and it was included in the Improvement Plan boundary. Thus proposed population density was limited with this Improvement Plan.



Table 5.5. Improvement Plans in Çankaya Municipality in 1984-1989 Period

| NEIGHBORHOOD                  | EXISTING      |               |                | IMPROVEMENT PLAN |               |               |                |                    |
|-------------------------------|---------------|---------------|----------------|------------------|---------------|---------------|----------------|--------------------|
|                               | Pop (1985)    | Area (ha)     | Density (p/ha) | Date             | Pop           | Area (ha)     | Density (p/ha) | Change in Density% |
| Karapınar                     | 3475          | 42.5          | 82             | 1987             | 12375         | 45            | 275            | 235                |
| Ata                           | 5533          | 70.0          | 79             | 1987             | 9900          | 36            | 275            | 248                |
| Akpınar I                     | 4715          | 70.0          | 67             | 1987             | 19800         | 66            | 300            | 348                |
| Akpınar II                    |               |               |                | 1987             |               |               |                |                    |
| Öveçler                       | 15589         | 297.5         | 52             | 1987             | 13000         | 52            | 250            | 381                |
| Şehitler                      | 7910          | 97.5          | 81             | 1987             | 13000         | 41            | 317            | 291                |
| Cevizlidere                   | 9905          | 50            | 198            | 1987             | 13500         | 54            | 250            | 26                 |
| Seyran                        | 10574         | 36.3          | 291            | 1988             | 7200          | 36            | 200            | -31                |
| Balgat                        | 10254         | 201.3         | 51             | 1987             | 10500         | 42            | 250            | 390                |
| Balgat                        | 10254         | 201.3         | 51             | 1987             | 3200          | 16            | 200            | 285                |
| Öveçler                       | 15589         | 297.5         | 52             |                  |               |               |                |                    |
| Kırkkonaklar                  | 6514          | 135           | 48             | 1987             | 12182         | 40.6          | 300            | 525                |
| Yıldız                        | 12702         | 118.7         | 107            | 1988             | 12159         | 41.6          | 292            | 204                |
| Hilal                         | 4695          | 63.1          | 74             |                  |               |               |                |                    |
| Çukurca I                     | 9128          | 217.2         | 42             | 1988             | 49750         | 86            | 250            | 495                |
| Çukurca II                    |               |               |                | 1988             |               | 62            |                |                    |
| Çukurca III                   |               |               |                | 1988             |               | 51            |                |                    |
| İmrahor I (Zafertepe)         | 13007         | 31.8          | 409            | 1988             | 7860          | 64            | 120            | -71                |
| İmrahor II (Bağcılar-Boztepe) | 12700         | 127           | 100            | 1987             | 20800         | 72            | 200            | 100                |
| İmrahor III                   |               |               |                | 1987             |               | 32            |                |                    |
| Sancak I                      | 10595         | 120           | 89             | 1988             | 18000         | 81            | 222            | 149                |
| Sancak II                     |               |               |                | 1988             |               |               |                |                    |
| Sancak III                    |               |               |                | 1990             |               |               |                |                    |
| M Kemal I                     | 1789          | 18.1          | 99             | 1988             | 22750         | 21            | 250            | 153                |
| M Kemal II                    |               |               |                | 1988             |               | 47            |                |                    |
| M Kemal III                   |               |               |                | 1988             |               | 23            |                |                    |
| Huzur                         | 5538          | 70.0          | 79             | 1987             | 10500         | 76            | 250            | 217                |
| Gökkuşığı                     | 5052          | 49.4          | 102            | 1987             | 16250         | 50            | 325            | 219                |
| <b>TOTAL</b>                  | <b>149945</b> | <b>1815.4</b> | <b>83</b>      |                  | <b>272726</b> | <b>1135.2</b> | <b>240</b>     | <b>189</b>         |

Sources: Field Survey

Sources of Population: 1985 and 1990 Census of Population, SIS

Source for "Existing Area": Tekeli et. al., 1987, pp.251-254



Table 5.6. Improvement Plans in Çankaya Municipality in 1990-1996 Period

| NEIGHBORHOOD    | EXISTING      |               |                | IMPROVEMENT PLAN |               |               |                |                    |
|-----------------|---------------|---------------|----------------|------------------|---------------|---------------|----------------|--------------------|
|                 | Pop (1990)    | Area (ha)     | Density (p/ha) | Date             | Pop           | Area (ha)     | Density (p/ha) | Change in Density% |
| Cevizlidere     | 14331         | 50.0          | 287            | 1995             | 71200         | 224           | 318            | 127                |
| Gökkuşığı       | 5694          | 49.4          | 115            |                  |               |               |                |                    |
| Karapınar       | 4097          | 42.5          | 96             |                  |               |               |                |                    |
| Akpınar         | 5330          | 70.0          | 76             |                  |               |               |                |                    |
| Şehitler        | 9115          | 97.5          | 94             | 1995             | 39480         | 38.8          | 350            | 317                |
| Ata             | 6055          | 70.0          | 87             |                  |               | 36            |                |                    |
| Öveçler         | 23694         | 297.5         | 80             |                  |               | 38            |                |                    |
| Keklikpınarı II | 9518          | 190.6         | 50             | 1995             | 4662          | 31.7          | 147            | 322                |
| Keklikpınarı I  |               |               |                | 1991             | 13194         | 53            | 249            |                    |
| Mürsel Uluç     | 7587          | 65            | 117            | 1991             | 16600         | 85            | 171            | 38                 |
| İlker           | 4479          | 32.5          | 138            |                  |               | 11.9          |                |                    |
| Çiğdemtepe      | 13213         | 64.1          | 206            | 1992             | 1161          | 7             | 166            | 55                 |
| Karakusunlar    | 24152         | 285           | 85             |                  |               |               |                |                    |
| Malazgirt       | 4454          | 50.6          | 88             | 1991             | 5500          | 20            | 275            | 213                |
| Kırıkkonaklar   | 8119          | 135.0         | 60             | 1994             | 28250         | 113           | 250            | 317                |
| Yıldız          | 12702         | 118.7         | 107            | 1994             | 12916         | 41.5          | 311            | 224                |
| Hilal           | 4695          | 63.1          | 74             |                  |               |               |                |                    |
| Aşıkpaşa        | 56881         | 235           | 242            | 1990             | 19710         | 65.8          | 300            | 224                |
| Boztepe         |               |               |                |                  |               |               |                |                    |
| Bağcılar        |               |               |                |                  |               |               |                |                    |
| Bademlidere     |               |               |                |                  |               |               |                |                    |
| Çiğdemtepe I    | 13213         | 64.1          | 206            | 1991             | 1400          | 7             | 200            | -11                |
| Çiğdemtepe II   |               |               |                | 1992             | 1161          | 7             | 166            |                    |
| Karakusun. I    |               |               |                | 1991             | 8282          | 33            | 251            | 209                |
| Karakusun. II   |               |               |                | 1991             | 5891          | 38            | 157            |                    |
| Karakusun. III  | 24152         | 285           | 85             | 1991             | 37482         | 136           | 276            |                    |
| Karakusun. IV   |               |               |                | 1991             | 5600          | 22            | 250            |                    |
| Karakusun. V    |               |               |                | 1991             | 16800         | 56            | 300            |                    |
| <b>TOTAL</b>    | <b>238268</b> | <b>2201.5</b> | <b>108</b>     |                  | <b>301003</b> | <b>1064.7</b> | <b>272</b>     | <b>152</b>         |

Sources: Field Survey

Sources of Population: 1985 and 1990 Census of Population, SIS

Source for "Existing Area": Tekeli et. al., 1987, pp.251-254

Table 5.6. illustrates the approved improvement plans in Çankaya Municipality in 1990-1996 periods. The average existing population density was 108 p/ha in 1990-1996 period in Çankaya Municipality. On the other hand, proposed population density was 272 p/ha and average change in population density was 152% in this period.

Keklikpınarı I and II Improvement Plans proposed maximum population changes (322 %) in 1990-1996 period. Population density in this neighborhood increased from 50 p/ha to 211 p/ha with the proposal of Improvement Plans. According to the interview with the planners in Çankaya Municipality, this neighborhood is adjacent to Oran and Dikmen which are residential areas with high density, thus Improvement Plan proposed high population density for this area. On the other hand, Improvement Plans Çiğdemtepe I and II proposed the lowest value (-11 %) in this period. While existing population density was 206 p/ha , this value declined to 183 p/ha with Improvement Plans. Almost all areas, whether suitable for construction or not, were covered by squatters in this neighborhood. Thus, Improvement Plans cleared unsuitable areas from squatters and did not propose high population densities.

Table 5.7. Improvement Plans in Etimesgut Municipality in 1990-1996 Period

| NEIGHBORHOOD | EXISTING     |              |                | Date | IMPROVEMENT PLAN |            |                |                    |
|--------------|--------------|--------------|----------------|------|------------------|------------|----------------|--------------------|
|              | Pop (1990)   | Area (ha)    | Density (p/ha) |      | Pop              | Area (ha)  | Density (p/ha) | Change in Density% |
| Etiler*      | 5170         | 40.5         | 128            | 1991 | 11700            | 30         | 390            | 205                |
| İstasyon*    | 6058         | 81           | 78             | 1991 | 10000            | 49         | 204            | 162                |
| K. Karabekir | 6776         | 43.2         | 157            | 1991 | 14000            | 29         | 483            | 208                |
| Süvari       | 6380         | 145.7        | 44             | 1991 | 40495            | 120        | 338            | 668                |
| 30 Ağustos   | 12091        | 61.9         | 195            | 1992 | 52000            | 117        | 444            | 128                |
| Piyade       | 6961         | 112.7        | 62             | 1991 | 68000            | 140        | 486            | 684                |
| Topçu*       | 4102         | 20           | 205            | 1991 | 29000            | 99         | 293            | 43                 |
| Şeker*       | 2200         | 20           | 110            | 1991 | 11700            | 20         | 585            | 431                |
| Eryaman*     | 8158         | 60.4         | 135            | 1992 | 10680            | 37         | 289            | 114                |
| <b>TOTAL</b> | <b>57896</b> | <b>584.4</b> | <b>99</b>      |      | <b>267080</b>    | <b>641</b> | <b>386</b>     | <b>290</b>         |

Sources: Field Survey

Sources of Population: 1985 and 1990 Census of Population, SIS

Source for "Existing Area": Tekeli et. al., 1987, pp.251-254

\* neighborhoods whose densities are calculated for settled area instead of area in boundaries.

Approved improvement plans in Etimesgut Municipality established in 1990 are illustrated in Table 5.7. The average existing population density was 99 p/ha and proposed population density was 386 p/ha in 1990-1996 period. As a result, the average change in population density was 290% in this Municipality.

Süvari neighborhood has the highest population density changes (668 %) in 1990-1996 period. Its population density rose from 44 p/ha to 338 p/ha with improvement plan. According to the interview with planners in Etimesgut Municipality, existing squatter population, almost all neighborhood was open to the housing construction. Thus, with the effect of proposals of Improvement Plan, more population settled in the planning area that means more population density for this neighborhood. On the other hand, the lowest value was in Topçu, whose area was completely covered by squatters (43%). So, this new Improvement Plan did not propose to increase in population density.

Table 5.8. Improvement Plans in Keçiören Municipality in 1984-1989 Period

| NEIGHBORHOOD      | EXISTING      |               |                | IMPROVEMENT PLAN |               |               |                |                    |
|-------------------|---------------|---------------|----------------|------------------|---------------|---------------|----------------|--------------------|
|                   | Pop (1985)    | Area (ha)     | Density (p/ha) | Date             | Pop           | Area (ha)     | Density (p/ha) | Change in Density% |
| Bağlarbaşı        | 10639         | 144.1         | 74             | 1987             | 23000         | 54.9          | 419            | 466                |
| Güçlükaya         | 10985         | 65.6          | 167            | 1987             | 15000         | 33            | 455            | 173                |
| Hasköy            | 1854          | 37.1          | 50             | 1987             | 6130          | 14.5          | 423            | 746                |
| Kanuni            | 10198         | 103.7         | 98             | 1987             | 20000         | 66            | 303            | 209                |
| Kuşcağız          | 16429         | 187.5         | 87             | 1989             | 38220         | 98            | 390            | 348                |
| Osmangazi I       | 6531          | 63.7          | 103            | 1988             | 15750         | 45            | 350            | 250                |
| Osmangazi II      |               |               |                | 1988             | 13690         | 37            | 370            |                    |
| Sancaktepe        | 9362          | 62.6          | 150            | 1988             | 24462         | 90.6          | 270            | 80                 |
| Ufuktepe          | 4275          | 150           | 29             | 1988             | 49977         | 134.5         | 372            | 1183               |
| Yayla             | 12455         | 193.8         | 64             | 1988             | 38250         | 155           | 247            | 286                |
| Şehit Kubilay     | 12208         | 181.3         | 67             | 1987             | 12000         | 33            | 364            | 445                |
| Şehit Kubilay ilv |               |               |                | 1989             | 1436          | 3.8           | 378            |                    |
| Atapark I         | 13865         | 118.8         | 117            | 1988             | 65740         | 80            | 346            | 445                |
| Atapark II        |               |               |                | 1989             |               | 110           |                |                    |
| 19 Mayıs          | 10630         | 71.9          | 148            | 1988             | 16980         | 60            | 283            | 57                 |
| İncirli           | 14683         | 100           | 147            | 1989             | 13500         | 72.6          | 186            |                    |
| Ayvalı I          |               |               |                | 1988             |               |               |                |                    |
| Ayvalı II         |               |               |                | 1989             |               |               |                |                    |
| Ayvalı III        | 14120         | 218.8         | 65             | 1988             | 48980         | 158           | 310            | 377                |
| Ayvalı IV         |               |               |                | 1989             |               |               |                |                    |
| Ayvalı V          |               |               |                | 1989             |               |               |                |                    |
| <b>TOTAL</b>      | <b>148234</b> | <b>1698.9</b> | <b>87</b>      |                  | <b>403115</b> | <b>1245.9</b> | <b>324</b>     | <b>272</b>         |

Sources: Field Survey

Sources of Population: 1985 and 1990 Census of Population, SIS

Source for "Existing Area": Tekeli et. al., 1987, pp.251-254

As can be seen from the Table 5.8., average existing population density was 87 p/ha and proposed population density was 324 p/ha in 1984-1989 period in Keçiören Municipality. Thus, average change in population density was 272% in this period.

Table 5.9. Improvement Plans in Keçiören Municipality in 1990-1996 Period

| NEIGHBORHOOD      | EXISTING      |               |                | IMPROVEMENT PLAN |               |               |                |                    |
|-------------------|---------------|---------------|----------------|------------------|---------------|---------------|----------------|--------------------|
|                   | Pop (1990)    | Area (ha)     | Density (p/ha) | Date             | Pop           | Area (ha)     | Density (p/ha) | Change in Density% |
| Basınevler        | 11366         | 56.3          | 202            | 1991             | 4704          | 11.5          | 409            | 103                |
| Çubuk I           | 22935         | 92            | 249            | 1990             | 16550         | 49.7          | 333            | 34                 |
| Çubuk II          |               |               |                | 1990             | 11655         | 35            | 333            |                    |
| Esertepe          | 14493         | 256.3         | 57             | 1990             | 27000         | 75            | 360            | 532                |
| Kurtini           | 4137          | 20            | 207            | 1990             | 7020          | 20            | 351            | 70                 |
| 23 Nisan          | 3225          | 37.5          | 86             | 1990             | 18000         | 48            | 375            | 238                |
| Köşk              | 3509          | 23.4          | 150            |                  |               |               |                |                    |
| Papazderesi       | 6680          | 40            | 167            | 1991             | 21201         | 55.5          | 382            | 129                |
| Sermeevler        | 2500          | 35            | 71             | 1990             | 9135          | 35            | 261            | 268                |
| Uyanış            |               |               |                | 1987             | 5500          | 10            | 550            |                    |
| Uyanış II         | 9812          | 71.9          | 137            | 1995             | 9060          | 21            | 431            | 204                |
| Uyanış III        |               |               |                | 1995             | 3861          | 13.2          | 297            |                    |
| Yeşilöz           | 4922          | 48.4          | 102            |                  |               |               |                |                    |
| Yeşiltepe         | 8383          | 59.4          | 141            | 1990             | 25000         | 89            | 281            | 158                |
| Çaldıran          | 3779          | 48.4          | 78             |                  |               |               |                |                    |
| Yüksetepe         | 12222         | 210.3         | 58             | 1992             | 17237         | 100.8         | 171            | 185                |
| Taşlıtepe         | 8100          | 126.6         | 64             |                  |               |               |                |                    |
| Bademlik I        |               |               |                | 1987             |               | 6.4           |                |                    |
| Bademlik II       | 8695          | 109.4         | 79             | 1990             | 42336         | 63.1          | 469            | 494                |
| Bademlik II ilave |               |               |                | 1990             |               | 20.8          |                |                    |
| Aktepe II         |               |               |                | 1995             | 14871         | 41.3          | 360            |                    |
| Aktepe III        | 5285          | 29.7          | 178            | 1995             | 8911          | 16.6          | 537            | 162                |
| Aktepe IV         |               |               |                | 1995             | 12280         | 25.3          | 485            |                    |
| Aktepe V          |               |               |                | 1995             | 8420          | 12            | 702            |                    |
| Kardeşler         | 6098          | 24.1          | 253            | 1995             | 17226         | 22            | 783            | 209                |
| Şenyuva           | 6917          | 45.6          | 152            | 1996             | 58000         | 198           | 293            | 93                 |
| Güzelyurt         |               |               |                |                  |               |               |                |                    |
| Kasalar           | 5186          | 38.7          | 134            | 1992             | 11466         | 26            | 441            | 229                |
| Şahlar            | 6821          | 54.7          | 125            | 1992             | 11340         | 20            | 567            | 113                |
| <b>TOTAL</b>      | <b>155065</b> | <b>1379.3</b> | <b>112</b>     |                  | <b>360773</b> | <b>1015.2</b> | <b>355</b>     | <b>217</b>         |

Sources: Field Survey

Sources of Population: 1985 and 1990 Census of Population, SIS

Source for "Existing Area": Tekeli et. al., 1987, pp.251-254

There are neighborhoods that have extremely different values. For example; Ufuktepe has the highest population density changes (1183%). Its population density increased from 29 p/ha (which was existing value) to 372 p/ha with improvement plan. The municipality explains that, existing squatter construction was very limited and existing population density was very limited too. Improvement Plan proposed more dense construction in this neighborhood because there were many vacant lots and property problem was in minimum level.

On the other hand, the lowest value in 1984-1989 period was in 19 Mayıs and İncirli Improvement Plans (57%). Proposed population density was 230 p/ha, while this value was 147 p/ha before the Improvement Plan. This limited rise was due to the scarcity of empty lots in these neighborhoods. Most of the areas were covered by squatters before the Improvement Plan.

Table 5.9. shows the approved improvement plans in Keçiören Municipality in 1990-1996 period. The average existing population density was 12 p/ha and proposed population density was 355 p/ha in this period. Thus, the average change in population density was 217% in Keçiören Municipality.

The maximum change in population density was in Esertepe (532%) in this period. Population density of this neighborhood rose from 57 p/ha to 360 p/ha. Most of the areas in the neighborhood boundary were vacant so improvement plans prepared in Municipality proposed high population increase in this neighborhood.

On the contrary, the lowest population density change was in Çubuk I and II Improvement Plans. While existing density was 249 p/ha, it increased to 333 p/ha with these plans. Planners preparing these plans explained that, almost all of these areas were covered by squatters, so improvement plans did not propose significant changes in population density in these areas. Consequently, population density remained limited to 333 p/ha in these areas.

Table 5.10. Improvement Plans in Mamak Municipality in 1984-1989 Period

| NEIGHBORHOOD  | EXISTING      |               |                | IMPROVEMENT PLAN |               |             |                |                    |
|---|---------------|---------------|----------------|------------------|---------------|-------------|----------------|--------------------|
|   | Pop (1985)    | Area (ha)     | Density (p/ha) | Date             | Pop           | Area (ha)   | Density (p/ha) | Change in Density% |
| Şafaktepe   | 7914          | 53.1          | 149            | 1989             | 816           | 4           | 204            | 37                 |
| Gülveren  | 13263         | 50.0          | 265            | 1989             | 17750         | 71          | 250            | 10                 |
| B. Üstü   | 7296          | 40.6          | 180            |                  |               |             |                |                    |
| Aşık Veysel   | 10787         | 53.1          | 203            |                  | 27368         | 88          | 311            |                    |
| Peyami Sefa   | 7871          | 47.5          | 166            |                  | 17105         | 55          | 311            |                    |
| Kazım Orbay   | 6246          | 56.8          | 110            | 1989             | 11196         | 36          | 311            | 185                |
| Gn. Z. Doğan  | 7060          | 106.9         | 66             |                  | 38253         | 123         | 311            |                    |
| Mutlu   | 18319         | 198.8         | 92             |                  | 59090         | 190         | 311            |                    |
| Nato Yolu Mamak<br>Koop.- Samsun<br>Dev. Yolu Arası | 4897          | 83            | 59             | 1989             | 13280         | 83          | 160            | 171                |
| Üreğil  |               |               |                |                  |               | 119         |                |                    |
| Yeşilbayır  |               |               |                |                  |               | 125         |                |                    |
| S. Gürler   |               |               |                |                  |               | 63          |                |                    |
| K. Kayaş  | 19613         | 1006.2        | 20             | 1989             | 64645         | 125         | 160            | 700                |
| Bayındır  |               |               |                |                  |               | 169         |                |                    |
| Kusunlar  |               |               |                |                  |               | 543         |                |                    |
| Tuzlucaıyr  | 8766          | 53.1          | 165            |                  |               | 31          |                |                    |
| Çağlayan  | 4081          | 28.1          | 145            |                  |               | 96          |                |                    |
| Şahintepe   | 7725          | 68.7          | 113            | 1989             | 52000         | 25          | 267            | 105                |
| Misket  | 6612          | 59.3          | 112            |                  |               | 60          |                |                    |
| Derbent   | 10921         | 143.7         | 76             |                  |               |             |                |                    |
| Dostlar   | 7687          | 79.6          | 97             | 1989             | 47250         | 135         | 350            | 373                |
| Araplar   | 2524          | 62.5          | 40             |                  |               |             |                |                    |
| D. Alıç   |               |               |                |                  |               |             |                |                    |
| Dutluk  | 32735         | 372.6         | 88             | 1989             | 64200         | 312         | 200            | 127                |
| Cengizhan   |               |               |                |                  |               |             |                |                    |
| F. Korutürk   |               |               |                |                  |               |             |                |                    |
| Y. Musluk   | 6934          | 56.3          | 123            | 1989             | 42600         | 123         | 346            | 151                |
| Gülseren  | 12102         | 81.3          | 149            |                  |               |             |                |                    |
| <b>TOTAL</b>  | <b>203353</b> | <b>2701.2</b> | <b>75</b>      |                  | <b>455553</b> | <b>2576</b> | <b>177</b>     | <b>136</b>         |

Sources: Field Survey

Sources of Population: 1985 and 1990 Census of Population, SIS

Source for "Existing Area": Tekeli et. al., 1987, pp.251-254

Table 5.10. illustrates the approved improvement plans in Mamak Municipality in 1984-1989 period. The average existing population density was 75 p/ha in 1990-1996 period in Çankaya Municipality. On the other hand, proposed population density was 177 p/ha and average change in population density was 136% in this period.

Üreğil, Yeşilbayır, Şahap Gürler, Küçük Kayaş, Bayındır, and Kusunlar are the neighborhoods which have the highest population density changes (700%). Improvement Plan that covers these six neighborhoods increased the population density from 75 p/ha to 177 p/ha. According to the planners who prepared this improvement plan since these areas were the most flat ones in the municipal boundary, higher population density was proposed for these suitable and vacant lots. Gülveren and Bahçelerüstü are the neighborhoods which have the lowest population density changes (10%). Population density increased from 227 p/ha to 250 p/ha with the proposals of improvement plan. Almost all of these two neighborhoods were covered by squatters, so improvement plan did not propose higher population densities.

Table 5.11. Improvement Plans in Mamak Municipality in 1990-1996 Period

| NEIGHBORHOOD   | EXISTING      |             |                | IMPROVEMENT PLAN |               |              |                |                    |
|----------------|---------------|-------------|----------------|------------------|---------------|--------------|----------------|--------------------|
|                | Pop (1990)    | Area (ha)   | Density (p/ha) | Date             | Pop           | Area (ha)    | Density (p/ha) | Change in Density% |
| Ekin           | 15753         | 573.4       | 27             | 1990             | 20000         | 88.0         | 227            | 741                |
| Ş.Cengiz Topel | 6762          | 38.7        | 175            | 1990             | 57484         | 92.6         | 621            | 320                |
| Türközü        | 10154         | 90.6        | 112            |                  |               |              |                |                    |
| Akdere         | 6874          | 31.8        | 216            |                  |               |              |                |                    |
| Derbent        | 11950         | 143.7       | 83             | 1995             | 10000         | 21.0         | 476            | 474                |
| Y. Kartaltepe  | 4951          | 28.1        | 176            | 1990             | 10856         | 30.6         | 355            | 188                |
| Kartaltepe     | 5911          | 21.9        | 270            |                  | 11049         | 23.0         | 481            |                    |
| Harman         | 6019          | 87.5        | 69             |                  | 12520         | 36.9         | 340            |                    |
| Hürel          | 3700          | 21.8        | 170            |                  | 5077          | 15.8         | 320            |                    |
| Ege            | 7366          | 206.2       | 36             | 1990             | 50325         | 305          | 165            | 210                |
| Boğaziçi       | 12079         | 84.3        | 143            |                  | 17500         | 50           | 200            |                    |
| Şirintepe      | 6612          | 84.3        | 78             |                  | 24500         | 70           | 200            |                    |
| Hüseyingazi    | 4485          | 106.3       | 42             | 1990             | 10955         | 41.7         | 176            | 121                |
| Altağaç        | 7097          | 68.7        | 103            |                  | 11957         | 42.9         | 159            |                    |
| Bahçeleriçi    | 4361          | 53.1        | 82             |                  | 6346          | 81.2         | 155            |                    |
| Karaağaç       | 3576          | 40.6        | 88             |                  | 8483          | 68.0         | 96             |                    |
| <b>TOTAL</b>   | <b>118050</b> | <b>1681</b> | <b>70</b>      |                  | <b>257052</b> | <b>966.7</b> | <b>266</b>     | <b>280</b>         |

Sources: Field Survey

Sources of Population: 1985 and 1990 Census of Population, SIS

Source for "Existing Area": Tekeli et. al., 1987, pp.251-254



As can be seen from the Table 5.11., average existing population density was 70 p/ha and proposed population density was 266 p/ha in 1990-1996 period in Mamak Municipality. Thus, average change in population density was 280% in this period.

The highest population density change was in Ekin in Keçiören Municipality (741%). While existing population density was 27 p/ha, it increased to 227 p/ha with improvement plan. Like Üreğil, Yeşilbayır, Şahap Gürler, Küçük Kayaş, Bayındır, and Kusunlar, this neighborhood also contained most flat areas in the municipal boundary. Thus, Municipality proposed denser housing areas in this neighborhood. On the other hand, the lowest population density changes are found in Hüseyin Gazi, Altıağaç, Bahçeleriçi and Karaağaç Improvement Plan (121%). Some of the squatters in these neighborhoods were constructed on unsuitable areas and improvement plans cleared these areas from squatters and transferred them to passive green areas. For this reason, population density proposals were not very high.

Table 5.12. Improvement Plans in Yenimahalle Municipality in 1984-1989 Period

| NEIGHBORHOOD | EXISTING      |              |                | IMPROVEMENT PLAN |               |              |                |                    |
|--------------|---------------|--------------|----------------|------------------|---------------|--------------|----------------|--------------------|
|              | Pop (1985)    | Area (ha)    | Density (p/ha) | Date             | Pop           | Area (ha)    | Density (p/ha) | Change in Density% |
| Ç. Tepe I    | 13240         | 64.1         | 207            | 1987             | 8766          | 24           | 365            | -10                |
| Ç. Tepe I    |               |              |                | 1988             | 5958          | 22           | 271            |                    |
| Ç. Tepe I    |               |              |                | 1989             | 4410          | 57           | 75             |                    |
| G. Tepe I    | 7218          | 40.6         | 178            | 1987             | 7488          | 22           | 340            | 92                 |
| G. Tepe II   |               |              |                | 1988             | 4482          | 13           | 345            |                    |
| Burç         | 11321         | 71.9         | 157            | 1988             | 16092         | 52           | 310            | 112                |
| Kayalar      | 6023          | 39.1         | 154            |                  | 12690         | 35           | 363            |                    |
| Kaletepe I   | 7225          | 43.8         | 165            | 1989             | 8262          | 27           | 306            | 76                 |
| Kaletepe II  |               |              |                | 1989             | 7974          | 29           | 275            |                    |
| Demetevler   | 133057        | 146.9        | 906            | 1982             | 374141        | 350          | 1069           | 18                 |
| G. Yaka I    | 15157         | 57.8         | 262            | 1987             | 11216         | 30           | 374            | 43                 |
| G. Yaka II   |               |              |                | 1988             |               |              |                |                    |
| Karşıyaka    | 13483         | 40.6         | 332            | 1987             | 20306         | 29           | 700            | 111                |
| Anadolu      | 7918          | 53.1         | 149            | 1987             | 11317         | 31.7         | 357            | 140                |
| Pamuklar     | 9241          | 59.4         | 156            | 1985             | 25610         | 62           | 413            | 165                |
| Avcılar      | 6170          | 343.8        | 18             | 1989             | 9954          | 54           | 184            | 922                |
| <b>TOTAL</b> | <b>215196</b> | <b>961.1</b> | <b>223</b>     |                  | <b>528666</b> | <b>837.7</b> | <b>631</b>     | <b>183</b>         |

Sources: Field Survey

Sources of Population: 1985 and 1990 Census of Population, SIS

Source for "Existing Area": Tekeli et. al., 1987, pp.251-254



As can be seen from the Table 5.12., existing average population density was 223 p/ha and proposed population density was 631 p/ha in 1984-1989 period in Yenimahalle Municipality. Thus, average changes in population density was 183% in this period.

There are neighborhoods that have extremely different values. For example; Avcılar has the highest population density changes in 1984-1989 period (922%). Population density of this neighborhood rose from 18 p/ha to 184 p/ha with the proposals of the improvement plan. According to the municipal authorities, 60% of this neighborhood is unsuitable for settlement. That is why, squatter population settled on these unsuitable areas were transferred to the other areas in the neighborhood. Thus, this additional population transfer increased the population density. On the other hand, Çiğdemtepe has the lowest value in 1984-1989 period (-10%). Proposed population density was 207 p/ha, while this value was 186 p/ha before the improvement plan. Likewise Avcılar neighborhood, 50% of Çiğdemtepe is unsuitable for settlement. However, improvement plan proposals for this neighborhood are different from these of Avcılar. In Çiğdemtepe, improvement plan proposed these unsuitable areas as green areas. Thus, gross population density decreased because of this large green area proposal.

Table 5.13. Improvement Plans in Yenimahalle Municipality in 1990-1996 Period

| NEIGHBORHOOD  | EXISTING     |              |                | IMPROVEMENT PLAN |             |             |                |                    |
|---------------|--------------|--------------|----------------|------------------|-------------|-------------|----------------|--------------------|
|               | Pop (1990)   | Area (ha)    | Density (p/ha) | Date             | Pop         | Area (ha)   | Density (p/ha) | Change in Density% |
| Beştepeler I  | 10502        | 157.5        | 67             | 1989             | 6550        | 17.6        | 372            | 327                |
| Beştepeler II |              |              |                | 1992             | 3100        | 16.1        | 193            |                    |
| <b>TOTAL</b>  | <b>10502</b> | <b>157.5</b> | <b>67</b>      |                  | <b>9650</b> | <b>33.7</b> | <b>286</b>     | <b>327</b>         |

Sources: Field Survey

Sources of Population: 1985 and 1990 Census of Population, SIS

Source for "Existing Area": Tekeli et. al., 1987, pp.251-254

There is only one neighborhood which has an improvement plan in 1990-1996 period in Yenimahalle Municipality (Table 5.13). Beştepeler had two improvement plans in

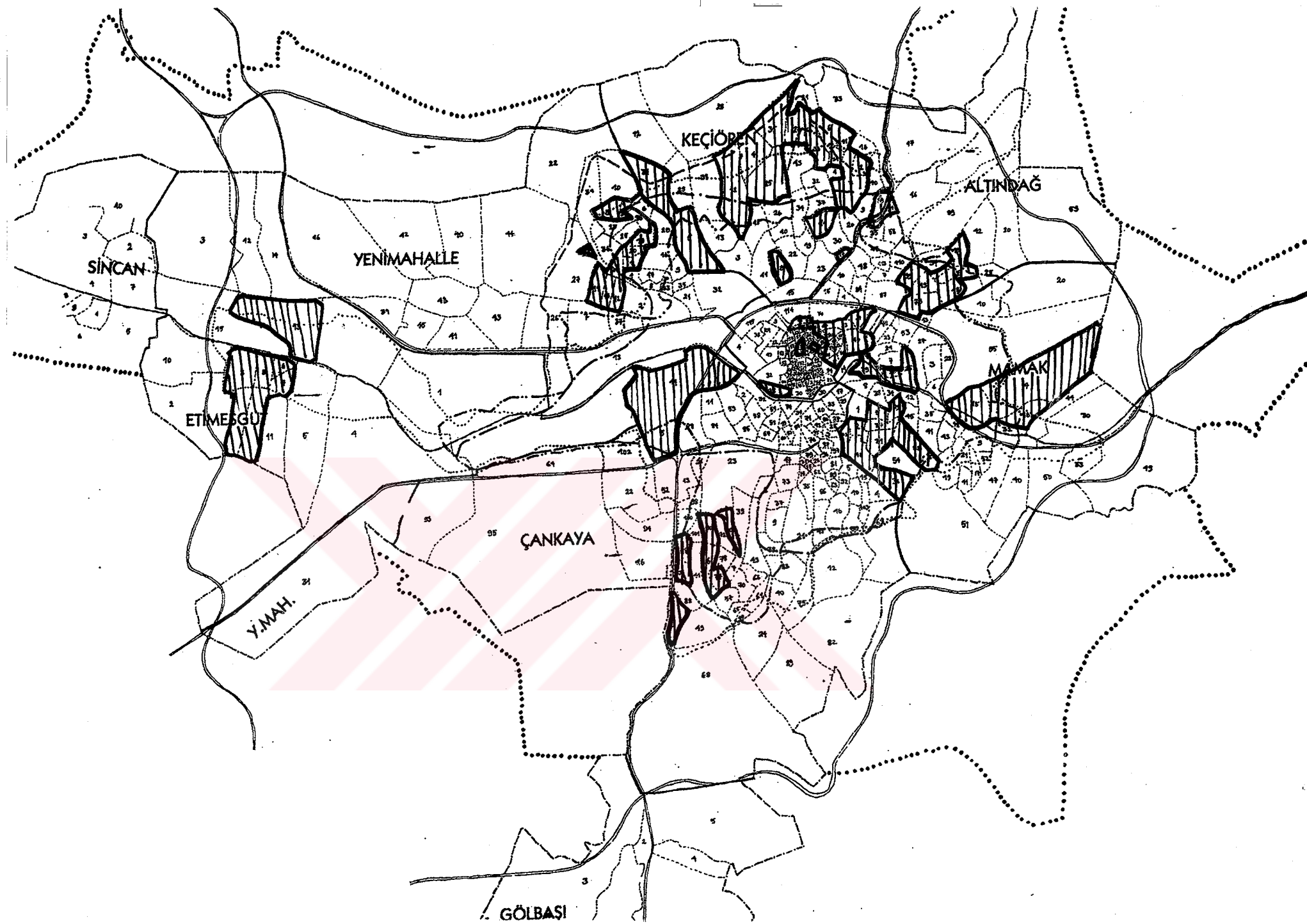


Figure 5.1. Neighborhoods Which Have Population Densities Above The Average

Source: Field Survey

the years 1989 and 1992. This neighborhood is different from other squatter areas in this municipality because of its social and economical structure. Population density of Beştepeler increased from 67 p/ha to 286 p/ha with these improvement plans.

It is also interesting to note that population density changes with distance from the city center and as expected, with topographical and climatic features of the area (Figure 5.1.).

### **5.2.2. Social and Technical Infrastructure**

The most crucial problem in squatter areas is the insufficiency of social and technical infrastructure. Thus, it is expected that improvement plans made for these should fulfill this deficiency. In order to examine the adequacy of proposed values Tables 5.14, 5.15, 5.16, 5.17, 5.18, which illustrate the m<sup>2</sup>/person for existing and proposed social and technical infrastructure for each district in 1984-1989 and 1990-1996 periods, were prepared. As can be seen from the Tables, the existing values of social and technical infrastructure are very limited. Likewise, proposed values are very limited too when the Act 3194 (İmar Kanunu) is concerned. Table 5.10. shows the areas of social and technical infrastructure that must be added in order to reach the standards of Act 3194. As can be seen from the Tables, existing squatters in the neighborhoods are the main obstacles to improve these areas. Most of the improvement plans aimed to solve property and ownership problems of these areas, instead of improving the environmental conditions.

#### **5.2.2.1. Education**

One of the most important social services, education is analyzed in both periods. It can be said that, existing education areas are very limited yet they are also limited in improvement plans too. Table 5.14 shows existing and proposed education areas with comparison with regulation Act 3194. As can be seen from the table, in spite of the increase in the education areas with improvement plans, these values do not reach the standards of Act 3194.

Table 5.14. Existing And Proposed Education Areas

|              | Exist<br>(m <sup>2</sup> ) | Proposed (m <sup>2</sup> ) |                | Exist<br>(m <sup>2</sup> /p) | Proposed (m <sup>2</sup> /person) |            | 3194<br>(m <sup>2</sup> /p) |
|--------------|----------------------------|----------------------------|----------------|------------------------------|-----------------------------------|------------|-----------------------------|
|              |                            | 1984-1989                  | 1990-1996      |                              | 1984-1989                         | 1990-1996  |                             |
| Altındağ     | 11000                      | 225222                     | 224805         | 0.1                          | 0.7                               | 1.1        | 4.0                         |
| Çankaya      | 150000                     | 163671                     | 400029         | 1.0                          | 0.6                               | 1.4        | 4.0                         |
| Etimesgut    | 15000                      | -                          | 173198         | 0.1                          | -                                 | 0.7        | 4.0                         |
| Keçiören     | 70000                      | 349517                     | 314069         | 0.5                          | 0.9                               | 0.9        | 4.0                         |
| Mamak        | 240000                     | 536100                     | 398486         | 1.2                          | 1.2                               | 1.6        | 4.0                         |
| Y.Mahalle    | 6000                       | 236945                     | 13445          | 0.03                         | 0.4                               | 0.6        | 4.0                         |
| <b>TOTAL</b> | <b>492000</b>              | <b>1511455</b>             | <b>1524032</b> | <b>0.17</b>                  | <b>0.8</b>                        | <b>1.1</b> | <b>4.0</b>                  |

Source: Field Survey

### 5.2.2.2. Health Areas

The lack of health services also contribute to poor living conditions in squatter settlements. As can be seen from the Table 5.15, there are areas for which no proposal covering health services has been made. Although improvement plans propose health service areas these are again short of standards of Act 3194.

Table 5.15. Existing And Proposed Health Areas

|              | Exis<br>(m <sup>2</sup> ) | Proposed (m <sup>2</sup> ) |               | Exis<br>(m <sup>2</sup> /p) | Proposed (m <sup>2</sup> /person) |             | 3194<br>(m <sup>2</sup> /p) |
|--------------|---------------------------|----------------------------|---------------|-----------------------------|-----------------------------------|-------------|-----------------------------|
|              |                           | 1984-1989                  | 1990-1996     |                             | 1984-1989                         | 1990-1996   |                             |
| Altındağ     | 4500                      | 14180                      | 27048         | 0.03                        | 0.05                              | 0.13        | 1.0                         |
| Çankaya      | 10570                     | 38674                      | 48594         | 0.07                        | 0.13                              | 0.21        | 1.0                         |
| Etimesgut    | 2800                      | -                          | 38753         | 0.05                        | -                                 | 0.15        | 1.0                         |
| Keçiören     | 9860                      | 58412                      | 58924         | 0.06                        | 0.15                              | 0.16        | 1.0                         |
| Mamak        | 12000                     | 60028                      | 47950         | 0.06                        | 0.13                              | 0.19        | 1.0                         |
| Y.Mahalle    | 3700                      | 29450                      | 1200          | 0.02                        | 0.06                              | 0.12        | 1.0                         |
| <b>TOTAL</b> | <b>43430</b>              | <b>200744</b>              | <b>222469</b> | <b>0.05</b>                 | <b>0.1</b>                        | <b>0.16</b> | <b>1.0</b>                  |

Source: Field Survey

### 5.2.2.3. Socio-Cultural Areas

Table 5.16. Existing And Proposed Socio-cultural Areas

|              | Exist<br>(m <sup>2</sup> ) | Proposed (m <sup>2</sup> ) |               | Exist<br>(m <sup>2</sup> /p) | Proposed (m <sup>2</sup> /person) |             | 3194<br>(m <sup>2</sup> /p) |
|--------------|----------------------------|----------------------------|---------------|------------------------------|-----------------------------------|-------------|-----------------------------|
|              |                            | 1984-1989                  | 1990-1996     |                              | 1984-1989                         | 1990-1996   |                             |
| Altındağ     | -                          | 8460                       | 33048         | -                            | 0.03                              | 0.16        | 3.0                         |
| Çankaya      | -                          | 32271                      | 56533         | -                            | 0.11                              | 0.24        | 3.0                         |
| Etimesgut    | -                          | -                          | 74148         | -                            | -                                 | 0.22        | 3.0                         |
| Keçiören     | -                          | 18350                      | 55822         | -                            | 0.05                              | 0.15        | 3.0                         |
| Mamak        | -                          | 34680                      | 15295         | -                            | 0.08                              | 0.06        | 3.0                         |
| Y.Mahalle    | -                          | 9165                       | 27300         | -                            | 0.02                              | 0.13        | 3.0                         |
| <b>TOTAL</b> | -                          | <b>102926</b>              | <b>262146</b> | -                            | <b>0.05</b>                       | <b>0.18</b> | <b>3.0</b>                  |

Source: Field Survey

In this study, libraries, theaters, cinemas are classified as social - cultural areas. Social - cultural areas, which are one of the important aspects of urbanization process, are very limited in both existing and proposed situations. Although Act 3194 requires 3.0 m<sup>2</sup>/person, the highest value proposed by improvement plans is just 0.24 m<sup>2</sup>/person in Çankaya Municipality in 1990 - 1996 period as observed in Table 5.16.

### 5.2.2.4. Green Area

Table 5.17. Existing And Proposed Green Areas

|              | Exist<br>(m <sup>2</sup> ) | Proposed (m <sup>2</sup> ) |                | Exist<br>(m <sup>2</sup> /p) | Proposed (m <sup>2</sup> /person) |            | 3194<br>(m <sup>2</sup> /p) |
|--------------|----------------------------|----------------------------|----------------|------------------------------|-----------------------------------|------------|-----------------------------|
|              |                            | 1984-1989                  | 1990-1996      |                              | 1984-1989                         | 1990-1996  |                             |
| Altındağ     | 5700                       | 638693                     | 769101         | 0.04                         | 2.1                               | 3.8        | 7.0                         |
| Çankaya      | 12000                      | 463538                     | 1592228        | 0.08                         | 1.6                               | 5.4        | 7.0                         |
| Etimesgut    | 8700                       | -                          | 1247948        | 0.15                         | -                                 | 4.7        | 7.0                         |
| Keçiören     | 10000                      | 966302                     | 791049         | 0.07                         | 2.4                               | 2.2        | 7.0                         |
| Mamak        | 7300                       | 560040                     | 178295         | 0.04                         | 1.2                               | 0.7        | 7.0                         |
| Y.Mahalle    | 5300                       | 683000                     | 28036          | 0.02                         | 1.3                               | 1.3        | 7.0                         |
| <b>TOTAL</b> | <b>49000</b>               | <b>3311573</b>             | <b>4606657</b> | <b>0.05</b>                  | <b>1.7</b>                        | <b>3.3</b> | <b>7.0</b>                  |

Source: Field Survey

Although minimum green area advised in Regulation Act 3194 is 7.0 m<sup>2</sup>/person, the maximum values are 2.4. m<sup>2</sup>/person in Keçiören Municipality in 1984 - 1989 period and 5.4 m<sup>2</sup>/person in Çankaya Municipality in 1990 - 1996 period very short of the required standards.

#### 5.2.2.5. Commercial Area

Proposed commercial areas are very limited in both periods. Both in 1984 - 1989 period and 1990 - 1996 period commercial areas failed to reach the level proposed in Act 3194.

Table 5.18. Existing And Proposed Commercial Areas

|              | Exist (m <sup>2</sup> ) | Proposed (m <sup>2</sup> ) |               | Exist (m <sup>2</sup> /p) | Proposed (m <sup>2</sup> /person) |            | 3194 (m <sup>2</sup> /p) |
|--------------|-------------------------|----------------------------|---------------|---------------------------|-----------------------------------|------------|--------------------------|
|              |                         | 1984-1989                  | 1990-1996     |                           | 1984-1989                         | 1990-1996  |                          |
| Altındağ     | -                       | 42605                      | 29608         | -                         | 0.14                              | 0.15       | 1.5                      |
| Çankaya      | 1200                    | 35466                      | 71498         | 0.08                      | 0.12                              | 0.24       | 1.5                      |
| Etimesgut    | -                       | -                          | 103942        | -                         | -                                 | 0.39       | 1.5                      |
| Keçiören     | -                       | 63016                      | 79270         | -                         | 0.16                              | 0.22       | 1.5                      |
| Mamak        | -                       | 467200                     | 168580        | -                         | 1.0                               | 0.7        | 1.5                      |
| Y.Mahalle    | -                       | 102760                     | 9980          | -                         | 0.2                               | 0.5        | 1.5                      |
| <b>TOTAL</b> | <b>1200</b>             | <b>711047</b>              | <b>455928</b> | <b>0.01</b>               | <b>0.4</b>                        | <b>0.3</b> | <b>1.5</b>               |

Source: Field Survey

#### 5.2.2.6. Technical Infrastructure

Water, electricity, drainage infrastructures, roads and car parks are examined as technical infrastructure in this study. Although lack of technical infrastructure is one of the most important problems in squatter areas, the proposals do not bring adequate supply either (Table 5.19). Because there is no information related to the value of proposed technical infrastructure in some of the municipality improvement plan reports, values in Table 5.19 are very limited.

Table 5.19. Existing and Proposed Technical Infrastructure Areas

|              | Exist<br>(m <sup>2</sup> ) | Proposed (m <sup>2</sup> ) |                | Exist<br>(m <sup>2</sup> /p) | Proposed (m <sup>2</sup> /person) |            | 3194*<br>(m <sup>2</sup> /p) |
|--------------|----------------------------|----------------------------|----------------|------------------------------|-----------------------------------|------------|------------------------------|
|              |                            | 1984-1989                  | 1990-1996      |                              | 1984-1989                         | 1990-1996  |                              |
| Altındağ     | -                          | 3245075                    | 1095399        | -                            | 10.4                              | 5.4        | 2.0                          |
| Çankaya      | -                          | 208262                     | 1777806        | -                            | 0.7                               | 6.0        | 2.0                          |
| Etimesgut    | -                          | -                          | 1467335        | -                            | -                                 | 5.5        | 2.0                          |
| Keçiören     | -                          | 1244860                    | 804919         | -                            | 3.1                               | 2.2        | 2.0                          |
| Mamak        | -                          | 202500                     | 3000           | -                            | 0.5                               | 0.01       | 2.0                          |
| Y.Mahalle    | -                          | -                          | 138965         | -                            | -                                 | 0.7        | 2.0                          |
| <b>TOTAL</b> | -                          | <b>4900697</b>             | <b>5287424</b> | -                            | <b>2.5</b>                        | <b>3.8</b> | <b>2.0</b>                   |

Source: Field Survey

\* Roads and car parks are not included this standard

Table 5.20. Social Service Areas Which Need To Be Added According To The Act 3194

|              | Education (ha) |              | Health (ha)   |             | Socio-Cult. (ha) |              | Green Area (ha) |             | Commercial (ha) |             | Tech. Infrast. (ha) |             |             |              |              |          |               |              |
|--------------|----------------|--------------|---------------|-------------|------------------|--------------|-----------------|-------------|-----------------|-------------|---------------------|-------------|-------------|--------------|--------------|----------|---------------|--------------|
|              | Exis.          | Prop. Added  | Exist         | Prop. Added | Exis.            | Prop. Added  | Exis.           | Prop. Added | Exis.           | Prop. Added | Exis.               | Prop. Added |             |              |              |          |               |              |
| Altındağ     | 1.1            | 45.0         | 160.4         | 0.5         | 4.1              | 46.7         | -               | 4.2         | 149.9           | 0.6         | 140.8               | 212.6       | -           | 7.2          | 69.8         | -        | 434.1         | -            |
| Çankaya      | 15             | 56.4         | 178.3         | 1.1         | 8.2              | 49.3         | -               | 8.9         | 167.1           | 1.2         | 205.6               | 203.9       | 0.08        | 10.7         | 77.2         | -        | 198.6         | -            |
| Etimesgut    | -              | 17.3         | 89.5          | 0.3         | 3.9              | 22.5         | -               | 7.4         | 72.7            | 0.9         | 124.8               | 61.3        | -           | 10.4         | 29.7         | -        | 146.7         | -            |
| Keçiören     | 7              | 66.4         | 239.2         | 1.0         | 11.7             | 63.7         | -               | 7.4         | 221.8           | 1.0         | 175.7               | 358.0       | -           | 14.2         | 100.4        | -        | 205.0         | -            |
| Mamak        | 24             | 93.5         | 191.6         | 1.2         | 10.8             | 60.5         | -               | 5.0         | 208.8           | 0.7         | 73.8                | 424.3       | -           | 63.6         | 43.3         | -        | 21.0          | 121.5        |
| Y.Mahalle    | 0.6            | 25.0         | 199.8         | 0.4         | 3.4              | 52.4         | -               | 3.7         | 165.0           | 0.5         | 71.1                | 321.9       | -           | 11.3         | 73.1         | -        | 13.9          | 93.7         |
| <b>TOTAL</b> | <b>31.6</b>    | <b>303.6</b> | <b>1058.8</b> | <b>4.5</b>  | <b>42.1</b>      | <b>295.1</b> | <b>-</b>        | <b>36.6</b> | <b>985.3</b>    | <b>4.9</b>  | <b>791.8</b>        | <b>1582</b> | <b>0.01</b> | <b>117.4</b> | <b>393.5</b> | <b>-</b> | <b>1019.3</b> | <b>215.2</b> |

Source: Field Survey



For more detailed information following Tables were prepared to show the amount of social service areas for each neighborhood.

Table 5.21. m<sup>2</sup>/p of Proposed Social and Technical Infrastructure with Improvement Plans Altındağ Municipality in 1984-1989 Period

| NEIGHBORHOOD                                  | Prop Pop      | Educatio n (m <sup>2</sup> /p) | Health (m <sup>2</sup> /p) | Socio-Cult. (m <sup>2</sup> /p) | Green Area (m <sup>2</sup> /p) | Commercial (m <sup>2</sup> /p) | Tech Infr. (m <sup>2</sup> /p) |
|---|---------------|--------------------------------|----------------------------|---------------------------------|--------------------------------|--------------------------------|--------------------------------|
| Karapürçek                                    | 7500          | 0.7                            | 0.3                        | 0.3                             | 2.6                            | 0.93                           | 7.8                            |
| F.Çelik<br>Başpınar<br>Beşikkaya<br>Doğantepe | 68500         | 0.9                            | 0.06                       | 0.04                            | 2.7                            | 0.14                           | 10.0                           |
| Çamlık<br>Beşikkaya                           | 99900         | 0.8                            | 0.04                       | 0.03                            | 1.8                            | 0.1                            | 13.3                           |
| Solfasol<br>Yıldıztepe<br>Güneşevler          | 38000         | 0.92                           | 0.04                       | -                               |                                | 0.11                           | 9.4                            |
| Plevne  | 7500          | 0.6                            | -                          | -                               | 0.2                            | 0.14                           | 0.8                            |
| Güneşevler<br>Gülpinar<br>Doğu<br>Yıldıztepe  | 52380         | 0.8                            | 0.05                       | -                               | 2.0                            | 0.1                            | 11.0                           |
| Güneşevler<br>Ali Ersoy                       | 11800         | -                              | -                          | -                               | 0.7                            | 0.14                           | 14.1                           |
| Yeşilöz<br>Yeşilöz                            | 7350          | -                              | -                          | -                               | 1.6                            | 0.4                            | 1.8                            |
| Başpınar                                      | 4500          | -                              | -                          | -                               | 4.3                            | -                              | 2.3                            |
| <b>TOTAL</b>                                  | <b>297430</b> | <b>0.7</b>                     | <b>0.05</b>                | <b>0.03</b>                     | <b>2.1</b>                     | <b>0.14</b>                    | <b>10.4</b>                    |

Source: Field Survey

Tables 5.21 and 5.22 show the m<sup>2</sup>/p of proposed social and technical infrastructure with improvement plans of Altındağ Municipality in 1984-1989 period and in 1990-1996 period. As can be observed from the Tables, proposed social and technical infrastructure are very limited in both periods. Especially, Plevne and Aktaş, Atilla, Cemalbey, Çandarlı, Engürü, Fatih, Fermanlılar, Gültepe, H. Akmanlar, Hürriyet, Kartallar, K. Zeytinoğlu, Orhan Gazi, Özgürlük, Sinan Paşa, Sokullu, Yavuz Selim

and Yiğitler are the neighborhoods which have the lowest m<sup>2</sup>/p of social and technical infrastructure with improvement plans.

Table 5.22. m<sup>2</sup>/p of Proposed Social and Technical Infrastructure with Improvement Plans Altındağ Municipality in 1990-1996 Period

| NEIGHBORHOOD  | Prop Pop      | Education (m <sup>2</sup> /p) | Health (m <sup>2</sup> /p) | Socio-Cult. (m <sup>2</sup> /p) | Green Area (m <sup>2</sup> /p) | Commercial (m <sup>2</sup> /p) | Tech Infr. (m <sup>2</sup> /p) |
|---|---------------|-------------------------------|----------------------------|---------------------------------|--------------------------------|--------------------------------|--------------------------------|
| Önder<br>Hacılar<br>Ulubey  | 5000          | 7.7                           | 1.2                        | 2.8                             | 15.3                           | 0.4                            | 11.2                           |
| Alemdağ<br>Battalgazi<br>Hacılar<br>Önder<br>Ulubey   | 95000         | 1.1                           | 0.1                        | 0.1                             | 1.2                            | 0.1                            | 5.1                            |
| Baraj   | 12000         | 1.0                           | 0.1                        | -                               | 4.7                            | 0.4                            | 6.6                            |
| Gültepe<br>S. Somuncu<br>Gökçeneffe<br>Doğanşehir<br>I. S. Murat<br>Çalışkanlar   | 35000         | 1.5                           | 0.2                        | 0.2                             | 13.1                           | 0.3                            | 5.1                            |
| Aktaş<br>Atilla<br>Cemalbey<br>Çandarlı<br>Engürü<br>Fatih<br>Fermanlılar<br>Gültepe<br>H. Akmanlar<br>Hürriyet<br>Kartallar<br>K. Zeytinoğlu<br>Orhan Gazi<br>Özgürlük<br>Sinan Paşa<br>Sokullu<br>Yavuz Selim<br>Yiğitler | 55000         | 0.4                           | 0.1                        | 0.05                            | 1.1                            | 0.02                           | 5.5                            |
| <b>TOTAL</b>  | <b>202000</b> | <b>1.1</b>                    | <b>0.13</b>                | <b>0.16</b>                     | <b>3.8</b>                     | <b>0.15</b>                    | <b>5.4</b>                     |

Source: Field Survey

According to the municipal authorities, these neighborhoods were formed in the 1960s and existing social and technical infrastructure were very limited then and no important improvements were made since then. The improvement plans could just solve the property problem, but were not successful in proposing adequate infrastructure to existing squatter settlements. More detailed information can be observed from the Tables 5. 32 and 5.33 which show proposals by improvement plans for all neighborhoods in Appendix B.

Table 5.23. m<sup>2</sup>/p of Proposed Social and Technical Infrastructure with Improvement Plans Çankaya Municipality in 1984-1989 Period

| NEIGHBORHOOD                                    | Prop Pop      | Education (m <sup>2</sup> /p) | Health (m <sup>2</sup> /p) | Socio-Cult. (m <sup>2</sup> /p) | Green Area (m <sup>2</sup> /p) | Commercial (m <sup>2</sup> /p) | Tech Infr. (m <sup>2</sup> /p) |
|---|---------------|-------------------------------|----------------------------|---------------------------------|--------------------------------|--------------------------------|--------------------------------|
| Karapınar                                       | 12375         | -                             | -                          | -                               | 0.3                            | -                              | -                              |
| Ata   | 9900          | -                             | 0.2                        | -                               | 1.0                            | -                              | -                              |
| Akpınar I<br>Akpınar II                         | 19800         | 0.6                           | 0.08                       | 0.1                             | 0.2                            | -                              | -                              |
| Öveçler   | 13000         | 0.8                           | 0.1                        | -                               | 0.7                            | 0.5                            | -                              |
| Şehitler  | 13000         | 0.5                           | 0.1                        | -                               | 2.2                            | -                              | -                              |
| Cevizlidere                                     | 13500         | 0.3                           | -                          | 0.1                             | 0.2                            | -                              | -                              |
| Seyran  | 7200          | 0.8                           | -                          | -                               | 0.4                            | -                              | -                              |
| Balgat  | 10500         | 0.95                          | -                          | -                               | 2.5                            | 0.6                            | 0.07                           |
| Çukurca I<br>Çukurca II<br>Çukurca III          | 49750         | 1.0                           | 0.5                        | 0.5                             | 2.2                            | 0.1                            | 0.1                            |
| İmrahor I<br>(Zafertepe)                        | 7860          | 0.15                          | -                          | -                               | 2.2                            | -                              | -                              |
| İmrahor II<br>(Bağcılar-Boztepe)<br>İmrahor III | 20800         | 0.6                           | -                          | -                               | 1.5                            | -                              | -                              |
| Sancak I<br>Sancak II<br>Sancak III             | 18000         | 1.2                           | 0.2                        | 0.1                             | 6.7                            | 0.4                            | 6.1                            |
| M Kemal I<br>M Kemal II<br>M Kemal III          | 22750         | 0.1                           | 0.1                        | -                               | 1.5                            | 0.2                            | 0.1                            |
| Huzur   | 10500         | 1.1                           | 0.2                        | 0.3                             | 4.6                            | 0.5                            | 0.2                            |
| Yıldız-Hilal                                    | 12159         | 0.9                           | -                          | 0.2                             | 1.2                            | 0.5                            | 7.3                            |
| Kırkkonaklar                                    | 12182         | 4.1                           | 0.4                        | -                               | 2.6                            | 0.5                            | -                              |
| Gökkuşluğu                                      | 16250         | 0.44                          | -                          | -                               | 0.1                            | -                              | -                              |
| <b>TOTAL</b>                                    | <b>291276</b> | <b>0.6</b>                    | <b>0.13</b>                | <b>0.11</b>                     | <b>1.6</b>                     | <b>0.12</b>                    | <b>0.7</b>                     |

Source: Field Survey

As can be observed from the Table 5.23, which shows the  $m^2/p$  of proposed social and technical infrastructure with improvement plans for Çankaya Municipality in 1984-1989 period, Karapınar has the lowest  $m^2/p$  of social and technical infrastructure. As mentioned above, improvement plans prepared in this period only aimed to solve property problems. Low amount of infrastructure in Karapınar was mainly due to this reason because no special care was taken to increase the level of technical infrastructure. Existing, built up squatter settlement was another obstacle to increase the amount of social and technical infrastructure according to the municipality.

Aşıkpaşa, Bağcılar, Bademlidere and Boztepe, on the other hand, have the lowest value in 1990-1996 period. Improvement plan prepared for these neighborhoods just propose storey increase instead of proposing additional social and technical infrastructure for these additional population (Table 5.24).

Table 5.24.  $m^2/p$  of Proposed Social and Technical Infrastructure with Improvement Plans Çankaya Municipality in 1990 - 1996 Period

| NEIGHBORHOOD                                     | Prop Pop | Education ( $m^2/p$ ) | Health ( $m^2/p$ ) | Socio-Cult. ( $m^2/p$ ) | Green Area ( $m^2/p$ ) | Commercial ( $m^2/p$ ) | Tech Infr. ( $m^2/p$ ) |
|--|----------|-----------------------|--------------------|-------------------------|------------------------|------------------------|------------------------|
| Cevizlidere<br>Gökkuşığı<br>Karapınar<br>Akpınar | 71200    | 1.0                   | 0.1                | 0.1                     | 4.8                    | 0.2                    | 11.9                   |
| Şehitler<br>Ata<br>Öveçler                       | 39480    | 0.9                   | 0.1                | 0.1                     | 7.4                    | 0.1                    | 6.0                    |
| Kırkkonaklar                                     | 28250    | 1.8                   | 0.2                | 0.2                     | 1.1                    | 0.2                    | -                      |
| Keklikpınarı II                                  | 4662     | 1.8                   | 0.4                | 0.8                     | 13.5                   | 0.3                    | 20.5                   |
| Keklikpınarı I                                   | 13194    | 1.9                   | 0.4                | 0.4                     | 5.6                    | 1.2                    | 9.9                    |
| Mürsel Uluç<br>İlker                             | 16600    | 1.8                   | 0.2                | 0.2                     | 7.4                    | 0.9                    | 13.6                   |
| Çiğdemtepe<br>Karakusunlar                       | 1161     | 4.3                   | 3.6                | 2.6                     | 10.1                   | -                      | 11.3                   |
| Yıldız<br>Hilal                                  | 12916    | 1.4                   | 0.2                | 0.5                     | 1.8                    | 0.9                    | 7.4                    |

Table 5.24. (Cont.)

|  |               |            |             |             |            |             |            |
|--|---------------|------------|-------------|-------------|------------|-------------|------------|
| Aşıkpaşa<br>Boztepe<br>Bağcılar<br>Bademlidere   | 19710         | 1.2        | -           | -           | 1.4        | 0.2         | -          |
| Çiğdemtepe<br>Çiğdemtepe   | 2561          | 2.0        | 0.8         | 0.6         | 9.2        | -           | 1.5        |
| Malazgirt  | 5500          | 2.4        | 0.5         | 0.3         | 0.3        | -           | -          |
| Karakusunlar I<br>Karakusunlar II<br>Karakusunlar III<br>Karakusunlar IV<br>Karakusunlar V | 68455         | 1.2        | 0.2         | 0.3         | 7.3        | 0.2         | 0.04       |
| <b>TOTAL</b>   | <b>301003</b> | <b>1.4</b> | <b>0.15</b> | <b>0.07</b> | <b>5.4</b> | <b>0.24</b> | <b>6.0</b> |

Source: Field Survey

Table 5.25. m<sup>2</sup>/p of Proposed Social and Technical Infrastructure with Improvement Plans Etimesgut Municipality in 1984-1989 Period in 1990 - 1996 Period

| NEIGHBORHOOD | Prop Pop      | Educatio<br>n (m <sup>2</sup> /p) | Health<br>(m <sup>2</sup> /p) | Socio-Cult.<br>(m <sup>2</sup> /p) | Green Area<br>(m <sup>2</sup> /p) | Commercia<br>l (m <sup>2</sup> /p) | Tech Infr.<br>(m <sup>2</sup> /p) |
|--------------|---------------|-----------------------------------|-------------------------------|------------------------------------|-----------------------------------|------------------------------------|-----------------------------------|
| Etiler       | 11700         | -                                 | 0.1                           | -                                  | 3.4                               | 0.2                                | 0.1                               |
| Istasyon     | 10000         | 2.0                               | 0.4                           | -                                  | 4.5                               | 0.7                                | 8.4                               |
| K.Karabekir  | 14000         | -                                 | 0.1                           | -                                  | 1.9                               | 1.3                                | 4.9                               |
| Süvari       | 60000         | 0.6                               | 0.2                           | 0.9                                | 1.0                               | 0.2                                | 3.8                               |
| 30 Ağustos   | 52000         | 0.7                               | 0.1                           | 0.1                                | 17.5                              | 0.2                                | 5.5                               |
| Piyade       | 68000         | 0.5                               | 0.2                           | 0.1                                | 0.8                               | 0.1                                | 4.9                               |
| Topçu        | 29000         | 1.0                               | 0.2                           | 0.1                                | 1.8                               | 0.2                                | 8.7                               |
| Eryaman      | 10680         | 1.1                               | 0.5                           | 0.4                                | 4.4                               | 0.7                                | 11.6                              |
| Şeker        | 5000          | 0.6                               | 0.1                           | -                                  | 1.5                               | 0.2                                | 4.2                               |
| <b>TOTAL</b> | <b>267080</b> | <b>0.7</b>                        | <b>0.15</b>                   | <b>0.28</b>                        | <b>4.7</b>                        | <b>0.39</b>                        | <b>5.5</b>                        |

Source: Field Survey

Although the average social-technical infrastructure proposed by improvement plans in Etimesgut municipality was higher than other municipalities, there are very low values in some of the neighborhoods. For example; Etiler has the lowest value in the municipality. According to the Municipal authorities existing squatter structure limited the proposals of Improvement Plan (Table 5.25).

Table 5.26.  $m^2/p$  of Proposed Social and Technical Infrastructure with Improvement Plans Keçiören Municipality in 1984-1989 Period

| NEIGHBORHOOD        | Prop Pop      | Education ( $m^2/p$ ) | Health ( $m^2/p$ ) | Socio-Cult. ( $m^2/p$ ) | Green Area ( $m^2/p$ ) | Commercial ( $m^2/p$ ) | Tech Infr. ( $m^2/p$ ) |
|---------------------|---------------|-----------------------|--------------------|-------------------------|------------------------|------------------------|------------------------|
| Bağlarbaşı          | 23000         | 0.2                   | -                  | -                       | 2.6                    | -                      | -                      |
| Güçlükaya           | 15000         | 1.0                   | -                  | -                       | 2.4                    | -                      | -                      |
| Hasköy              | 6130          | 0.5                   | -                  | -                       | 2.1                    | -                      | -                      |
| Kanuni              | 20000         | 0.3                   | 0.1                | 0.2                     | 1.3                    | -                      | 0.5                    |
| Kuşcağz             | 38220         | 1.2                   | -                  | -                       | 2.3                    | 0.03                   | 0.16                   |
| Osmangazi I         | 15750         | 0.5                   | 0.3                | 0.05                    | 2.9                    | 0.7                    | -                      |
| Osmangazi II        | 13690         | 1.8                   | 0.2                |                         | 3.7                    |                        |                        |
| Sancaktepe          | 24462         | 1.5                   | 0.2                | -                       | 4.4                    | 0.7                    | 0.2                    |
| Ufuktepe            | 49977         | 0.8                   | 0.1                | -                       | 1.3                    | 3.3                    | 9.8                    |
| Yayla               | 38250         | 2.0                   | 0.4                | 0.4                     | 3.3                    | 0.2                    | 9.8                    |
| Şehit Kubilay       | 12000         | 0.2                   | -                  | -                       | 1.2                    | -                      | -                      |
| Şehit Kubilay ilave | 1436          | -                     |                    |                         | 6.2                    |                        | 5.1                    |
| Atapark I           | 65470         | 0.6                   | 0.3                | -                       | 3.6                    | 0.1                    | 2.7                    |
| Atapark II          |               |                       |                    |                         |                        |                        |                        |
| Ayvalı I            | 48980         | 0.7                   | 0.1                | -                       | 1.0                    | 0.03                   | 5.1                    |
| Ayvalı II           |               |                       |                    |                         |                        |                        |                        |
| Ayvalı III          |               |                       |                    |                         |                        |                        |                        |
| Ayvalı IV           |               |                       |                    |                         |                        |                        |                        |
| Ayvalı V            |               |                       |                    |                         |                        |                        |                        |
| 19 Mayıs            | 30480         | 0.9                   | -                  | -                       | 1.5                    | 0.1                    | -                      |
| İncirli             |               |                       |                    |                         |                        |                        |                        |
| <b>TOTAL</b>        | <b>403115</b> | <b>0.9</b>            | <b>0.15</b>        | <b>0.05</b>             | <b>2.4</b>             | <b>0.16</b>            | <b>3.1</b>             |

Source: Field Survey

Table 5.26 and 5.27 show the  $m^2/p$  of proposed social and technical infrastructure with improvement plans of Keçiören municipality in 1984-1989 period and in 1990-1996 period. According to the Tables, Hasköy in 1984-1989 period and Şahlar in 1990-1996 period have the lowest values in Keçiören municipality. Authorities, who prepared these improvement plans, explained that, almost all of the areas of these neighborhoods were covered by squatters. Because of this poor existing construction condition improvement plan just aimed to solve the property problem and proposed four storeys for these dense squatter areas.

Table 5.27. m<sup>2</sup>/p of Proposed Social and Technical Infrastructure with Improvement Plans Keçiören Municipality in 1990 - 1996 Period

| NEIGHBORHOOD                                     | Prop Pop      | Education (m <sup>2</sup> /p) | Health (m <sup>2</sup> /p) | Socio-Cult. (m <sup>2</sup> /p) | Green Area (m <sup>2</sup> /p) | Commercial (m <sup>2</sup> /p) | Tech Infr. (m <sup>2</sup> /p) |
|--|---------------|-------------------------------|----------------------------|---------------------------------|--------------------------------|--------------------------------|--------------------------------|
| Çubuk I<br>Çubuk II                              | 28205         | 0.7                           | 0.1                        | 5.0                             | 3.9                            | 0.6                            | 0.5                            |
| Esertepe   | 27000         | 0.3                           | -                          | -                               | 1.1                            | 0.3                            | 0.3                            |
| Kurtini  | 7020          | 1.2                           | -                          | -                               | 1.3                            | -                              | 1.1                            |
| 23 Nisan<br>Köşk                                 | 18000         | 0.2                           | -                          | -                               | 0.5                            | 0.3                            | -                              |
| Papazderesi                                      | 21201         | 0.5                           | 0.1                        | 0.1                             | 2.6                            | 0.3                            | 0.2                            |
| Sermeevler                                       | 9135          | 0.2                           | 0.2                        | 0.2                             | 1.4                            | -                              | 0.2                            |
| Uyanış<br>Uyanış II<br>Uyanış III                | 18421         | 0.6                           | 0.3                        | 0.2                             | 0.5                            | 0.43                           | 0.3                            |
| Yeşilöz<br>Yeşiltepe<br>Çaldıran                 | 25000         | 1.7                           | 0.3                        | -                               | 2.1                            | 0.5                            | 9.7                            |
| Yüksetepe<br>Taşlıtepe                           | 17237         | 3.5                           | 1.0                        | -                               | 5.1                            | 0.9                            | 0.1                            |
| Bademlik I<br>Bademlik II<br>Bademlik II ilave   | 42336         | 0.9                           | 0.1                        | -                               | 0.8                            | -                              | 0.5                            |
| Aktepe II<br>Aktepe III<br>Aktepe IV<br>Aktepe V | 44482         | 0.8                           | 0.2                        | 0.04                            | 1.7                            | 0.2                            | 3.9                            |
| Kardeşler  | 17226         | 0.3                           | 0.1                        | -                               | 0.8                            | -                              | 2.3                            |
| Şenyuva<br>Güzelyurt                             | 58000         | 1.0                           | 0.2                        | -                               | 3.3                            | -                              | 3.8                            |
| Kasalar  | 11466         | 0.5                           | -                          | -                               | 4.0                            | -                              | -                              |
| Şahlar   | 11340         | -                             | -                          | -                               | 4.4                            | -                              | -                              |
| <b>TOTAL</b>                                     | <b>360773</b> | <b>0.9</b>                    | <b>0.16</b>                | <b>0.5</b>                      | <b>2.2</b>                     | <b>0.22</b>                    | <b>2.2</b>                     |

Source: Field Survey

As can be seen from Tables 5.28 and 5.29, which illustrate the m<sup>2</sup>/p of proposed social and technical infrastructure with improvement plans, Mamak municipality in 1984-1989 period and 1990-1996 period and Yatık Musluk and Gülseren neighborhoods improvement plan have the lowest values in 1984-1989 period. According to the interview with the planners, who prepared this improvement plan, regulation share (d.o.p.), which should have been used for social and technical

infrastructure, decreased from 35% to 25% and was used to solve the property problems. On the other hand, Derbent has the lowest value in the 1990-1996 period. The reason for this low value was again existence of unsuitable areas for settlement according to the municipality.

Table 5.28. m<sup>2</sup>/p of Proposed Social and Technical Infrastructure with Improvement Plans Mamak Municipality in 1984-1989 Period

| NEIGHBORHOOD  | Prop Pop      | Education (m <sup>2</sup> /p) | Health (m <sup>2</sup> /p) | Socio-Cult. (m <sup>2</sup> /p) | Green Area (m <sup>2</sup> /p) | Commercial (m <sup>2</sup> /p) | Tech Infr. (m <sup>2</sup> /p) |
|---|---------------|-------------------------------|----------------------------|---------------------------------|--------------------------------|--------------------------------|--------------------------------|
| Aşık Veysel<br>Peyami Sefa<br>Kazım Orbay<br>Gn. Zeki Doğan<br>Mutlu  | 153012        | 1.0                           | 0.2                        | 0.02                            | 1.1                            | 0.05                           | -                              |
| Şafaktepe   | 816           | 3.0                           | -                          | -                               | 11.0                           | -                              | -                              |
| Nato Yolu Mamak<br>Koop.- Samsun<br>Dev. Yolu Arası                   | 13280         | 2.6                           | 0.7                        | 1.1                             | 10.1                           | 15.0                           | -                              |
| Üreğil<br>Yeşilbayır<br>S. Gürler<br>K. Kayaş<br>Bayındır<br>Kusunlar | 64645         | 1.3                           | -                          | 0.14                            | 1.9                            | 1.9                            | -                              |
| Tuzluçayır<br>Çağlayan<br>Şahintepe<br>Misket                         | 52000         | 1.3                           | 0.3                        | 0.13                            | 1.3                            | 0.2                            | -                              |
| Derbent<br>Dostlar<br>Araplar   | 47250         | 1.1                           | 0.14                       | 0.04                            | 0.6                            | 0.8                            | 4.3                            |
| D. Alıç<br>Dutluk<br>Cengizhan<br>F. Korutürk                         | 64200         | 1.2                           | -                          | -                               | 0.3                            | 0.2                            | -                              |
| Y. Musluk<br>Gülseren   | 42600         | 1.0                           | 0.1                        | -                               | 0.2                            | 1.1                            | -                              |
| Gülveren<br>B. Üstü   | 17750         | 1.2                           | 0.1                        | -                               | 0.3                            | 1.4                            | -                              |
| <b>TOTAL</b>  | <b>455553</b> | <b>1.2</b>                    | <b>0.13</b>                | <b>0.08</b>                     | <b>1.2</b>                     | <b>1.0</b>                     | <b>0.5</b>                     |

Source: Field Survey



Table 5.29. m<sup>2</sup>/p of Proposed Social and Technical Infrastructure with Improvement Plans Mamak Municipality in 1990 - 1996 Period

| NEIGHBORHOOD                                      | Prop Pop      | Education (m <sup>2</sup> /p) | Health (m <sup>2</sup> /p) | Socio-Cult. (m <sup>2</sup> /p) | Green Area (m <sup>2</sup> /p) | Commercial (m <sup>2</sup> /p) | Tech Infr. (m <sup>2</sup> /p) |
|---|---------------|-------------------------------|----------------------------|---------------------------------|--------------------------------|--------------------------------|--------------------------------|
| Y. Kartaltepe<br>Kartaltepe<br>Harman<br>Hürel    | 39502         | 1.1                           | 0.3                        | 0.08                            | 0.7                            | 0.7                            | -                              |
| Ege<br>Boğaziçi<br>Şirintepe                      | 92325         | 0.6                           | 0.2                        | 0.06                            | 0.4                            | 0.05                           | -                              |
| Şehit Cengiz<br>Topel<br>Türküzü<br>Akdere        | 57484         | 2.6                           | 0.06                       | 0.03                            | 0.5                            | 0.7                            | -                              |
| Derbent   | 10000         | 0.8                           | 0.2                        | -                               | 0.1                            | 0.5                            | -                              |
| Hüseyingazi<br>Altağaç<br>Bahçeleriçi<br>Karaağaç | 37741         | 2.3                           | 0.1                        | -                               | 0.9                            | 0.9                            | -                              |
| Ekin  | 20000         | 2.8                           | 0.4                        | -                               | 2.5                            | 2.9                            | 0.2                            |
| <b>TOTAL</b>                                      | <b>257052</b> | <b>1.6</b>                    | <b>0.19</b>                | <b>0.06</b>                     | <b>0.7</b>                     | <b>0.7</b>                     | <b>0.01</b>                    |

Source: Field Survey

Table 5.30. m<sup>2</sup>/p of Proposed Social and Technical Infrastructure with Improvement Plans Yenimahalle Municipality in 1984-1989 Period

| NEIGHBORHOOD                        | Prop Pop | Education (m <sup>2</sup> /p) | Health (m <sup>2</sup> /p) | Socio-Cult. (m <sup>2</sup> /p) | Green Area (m <sup>2</sup> /p) | Commercial (m <sup>2</sup> /p) | Tech Infr. (m <sup>2</sup> /p) |
|-------------------------------------|----------|-------------------------------|----------------------------|---------------------------------|--------------------------------|--------------------------------|--------------------------------|
| Ç. Tepe I<br>Ç. Tepe I<br>Ç. Tepe I | 19134    | 2.2                           | 0.18                       | 0.07                            | 1.2                            | 0.3                            | -                              |
| G. Tepe I<br>G. Tepe II             | 11970    | 0.7                           | -                          | -                               |                                | -                              | -                              |
| Burç<br>Kayalar                     | 28782    | 0.7                           | 0.04                       | 0.07                            |                                | 0.5                            | -                              |
| Kaletepe I<br>Kaletepe II           | 16236    | 2.2                           | 0.16                       | -                               |                                | 0.8                            | -                              |
| Demetevler                          | 374141   | 0.2                           | 0.05                       | 0.01                            |                                | 0.05                           | -                              |
| G. Yaka I<br>G. Yaka II             | 11216    | 0.4                           | -                          | -                               | 2.8                            | 0.1                            | -                              |
| Karşıyaka                           | 20306    | 0.2                           | 0.1                        | -                               | 0.3                            | 0.6                            | -                              |
| Anadolu                             | 11317    | 0.5                           |                            |                                 | 0.7                            |                                |                                |

Table 5.30. (Cont.)

|              |               |            |             |             |            |            |          |
|--------------|---------------|------------|-------------|-------------|------------|------------|----------|
| Pamuklar     | 25610         | 1.5        | 0.1         |             | 1.6        | 1.4        | -        |
| Avcılar      | 9954          | 1.1        | 0.1         |             | 2.0        |            |          |
| <b>TOTAL</b> | <b>528666</b> | <b>0.4</b> | <b>0.06</b> | <b>0.02</b> | <b>1.2</b> | <b>0.2</b> | <b>-</b> |

Source: Field Survey

Tables 5.30 and 5.31 show the  $m^2/p$  of proposed social and technical infrastructure with improvement plans in Yenimahalle municipality in 1984-1989 and in 1990 - 1996 periods. Güventepe neighborhood has the lowest ratio in 1984-1989 period. According to the municipal authorities, almost all of the neighborhood was covered by squatter settlements, that limited the ratios of social and technical infrastructure.

Table 5.31.  $m^2/p$  of Proposed Social and Technical Infrastructure with Improvement Plans Yenimahalle Municipality in 1990 - 1996 Period

| NEIGHBORHOOD             | Prop Pop    | Education ( $m^2/p$ ) | Health ( $m^2/p$ ) | Socio-Cult. ( $m^2/p$ ) | Green Area ( $m^2/p$ ) | Commercial ( $m^2/p$ ) | Tech Infr. ( $m^2/p$ ) |
|--------------------------|-------------|-----------------------|--------------------|-------------------------|------------------------|------------------------|------------------------|
| Beştepeler<br>Beştepeler | 9650        | 0.4                   | 0.1                | 2.8                     | 1.8                    | 0.1                    | 3.2                    |
| <b>TOTAL</b>             | <b>9650</b> | <b>0.4</b>            | <b>0.1</b>         | <b>2.8</b>              | <b>1.8</b>             | <b>0.1</b>             | <b>3.2</b>             |

Source: Field Survey

For more detailed information Tables 1 - 19 (in the Appendix B) were prepared to show the  $m^2$  of social service areas for each neighborhood.

As a conclusion, the lack of proposal for adequate social and technical infrastructure standards in improvement plans seems to have been an opportunity missed to improve the squatter areas (Figure 5.2.). Municipalities use the regulation share (d.o.p.) which should be used for social and technical infrastructure, to solve the property problems. Another important problem is existing squatter settlements in the area, an obstacle to improvement of technical infrastructure. All improvement plans tried to protect all squatter houses and that caused to degradation in the field of social and technical infrastructure. Although improvement plans proposed additional population for these areas, they failed to solve the lack of social and technical infrastructure problem.

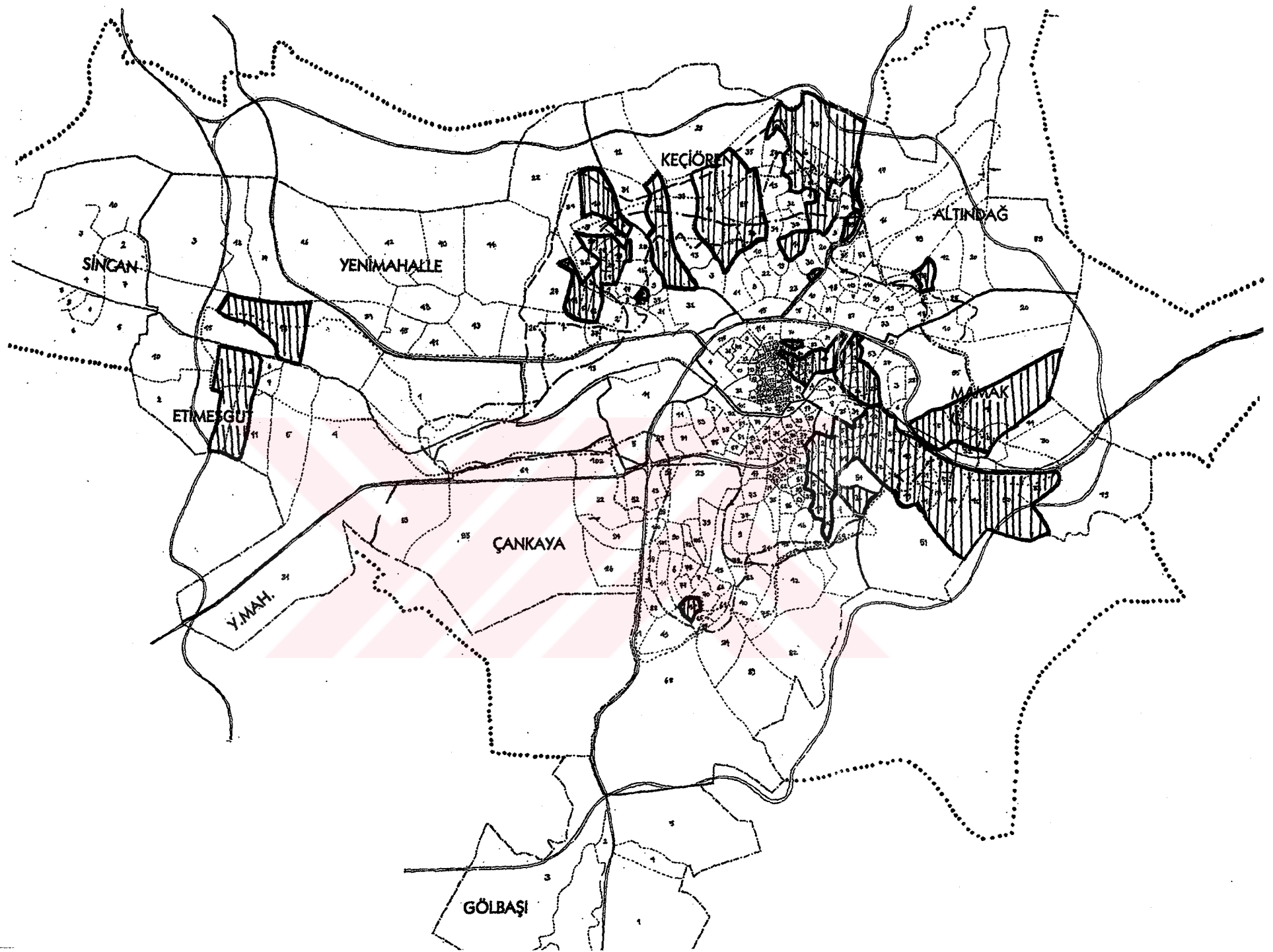


Figure 5.2. Neighborhoods Which Have Social Technical Infrastructure Below The Average

Source: Field Survey

### 5.2.3. Land Prices

Land prices of squatter neighborhoods have been collected before and after improvement plans in order to analyze the effects of regularization process on urban land prices. With improvement plans, increase in the level of servicing, environmental quality and construction rights determines the level of increase in land prices of squatter settlements. This increase is higher in neighborhoods that are located at the urban fringe. For example in Fermanlılar neighborhood in Altındağ, land price was 36.337 TL/m<sup>2</sup> in 1986. After improvement plan, made in 1991, land price reached 468.626 TL/m<sup>2</sup>.

When a relation is searched for between the distance from the city center and land price, an inverse ratio is expected. But due to the effect of improvement plans, this ratio can not be observed from findings of this study. It is observed that, far beyond the city center, land prices can reach the highest values. Thus, this analysis is very important in terms of determining the effect of distance from city center on land prices.

Table 5.32 - 5.42. gives more information about changes in the land prices in time in Ankara's squatter neighborhoods.

Table 5.32. Land Prices of Neighborhoods with Improvement Plans in 1984-1989 Period in Altındağ

| NEIGHBORHOOD   | Land Price In 1986 | Land Price In 1990 | Land Price In 1994 | Change 1986-1990 (%) | Change 1990-1994 (%) | Change 1986-1994 (%) | Distance from city cent.(km) |
|----------------|--------------------|--------------------|--------------------|----------------------|----------------------|----------------------|------------------------------|
| Alıersoy       | 82133              | 130320             | 389570             | 59                   | 199                  | 374                  | 6                            |
| Camlık         | 117100             | 89672              | 377019             | -23                  | 320                  | 222                  | 9                            |
| Doğantepe      | 41442              | 77051              | 249553             | 86                   | 224                  | 502                  | 8                            |
| Doğu           | 33992              | 57581              | 407500             | 69                   | 608                  | 1099                 | 7                            |
| Feridunçelik   | 518422             | 99208              | 277915             | -81                  | 180                  | -46                  | 8                            |
| Gülpınar       | 31350              | 51890              | 388717             | 66                   | 649                  | 1140                 | 7                            |
| Güneşevler     | 36649              | 64256              | 652000             | 75                   | 915                  | 1679                 | 39                           |
| Plevne         | 14908              | 179486             | 529750             | 1104                 | 195                  | 3453                 | 21                           |
| Solfasol       | 80802              | 72024              | 181093             | -11                  | 151                  | 124                  | 8                            |
| Yıldıztepe     | 39786              | 60323              | 546064             | 52                   | 805                  | 1273                 | 46                           |
| <b>AVERAGE</b> | <b>99658</b>       | <b>88181</b>       | <b>399918</b>      | <b>-12</b>           | <b>354</b>           | <b>301</b>           | <b>16</b>                    |

Source of Land Prices and Distance: Taşan. T. 1996.

Tables 5.32 and 5.33 show the changes in land prices during 1984-1994 with reference to distance to city center. While the average population changes in neighborhoods which have improvement plans in 1984-1989 period, was 301%, 16 km away from the city center, this percentage was 426% at 18 km from city center in improvement plan prepared in 1990-1996 period.

Table 5.33. Land Prices of Neighborhoods with Improvement Plans in 1990-1996 Period in Altındağ

| NEIGHBORHOOD   | Land Price In 1986 | Land Price In 1990 | Land Price In 1994 | Change 1986-1990 (%) | Change 1990-1994 (%) | Change 1986-1994 (%) | Distance from city cent.(km) |
|----------------|--------------------|--------------------|--------------------|----------------------|----------------------|----------------------|------------------------------|
| Aktaş          | 63508              | 132676             | 241140             | 109                  | 82                   | 280                  | 16                           |
| Atila          | 129830             | 131618             | 163000             | 1                    | 24                   | 26                   | 19                           |
| Battalgazi     | 443591             | 80921              | 354525             | -82                  | 338                  | -20                  | 8                            |
| Çalışkanlar    | 112504             | 237647             | -135154            | 111                  | -157                 | -220                 | 27                           |
| Cemalbey       | 86554              | 130875             | 163000             | 51                   | 25                   | 88                   | 18                           |
| Dogansehir     | 58816              | 523500             | n.a.               | 790                  | n.a.                 | n.a.                 | 19                           |
| Engürü         | 39478              | 91613              | 380279             | 132                  | 315                  | 863                  | 18                           |
| Fatih          | 74802              | 251280             | 1507750            | 236                  | 500                  | 1916                 | 16                           |
| Fermanlılar    | 36377              | 79568              | 468626             | 119                  | 489                  | 1188                 | 17                           |
| Gültepe        | 92316              | 120715             | 294306             | 31                   | 144                  | 219                  | 26                           |
| Gokcenefe      | 88310              | 170138             | 706333             | 93                   | 315                  | 700                  | 19                           |
| Hacılar        | 547019             | 89519              | 356644             | -84                  | 298                  | -35                  | 7                            |
| H. akmanlar    | 82226              | 194438             | 326000             | 136                  | 68                   | 296                  | 3                            |
| Hurriyet       | 102436             | 104700             | 293465             | 2                    | 180                  | 186                  | 17                           |
| Kartallar      | 42031              | 61072              | 183375             | 45                   | 200                  | 336                  | 16                           |
| K. Zeytinoglu  | 82468              | 90045              | 158110             | 9                    | 76                   | 92                   | 22                           |
| Önder          | 485383             | 634441             | 6363520            | 31                   | 903                  | 1211                 | 43                           |
| Orhangazi      | 24251              | 75384              | 183376             | 211                  | 143                  | 656                  | 16                           |
| Özgürlük       | 63171              | 104478             | 252699             | 65                   | 142                  | 300                  | 3                            |
| S. Somuncu     | 80814              | 116919             | 407514             | 45                   | 249                  | 404                  | 24                           |
| Sinanpasa      | 71426              | 115945             | 260735             | 62                   | 125                  | 265                  | 18                           |
| Sokullu        | 67752              | 244300             | 1059500            | 261                  | 334                  | 1464                 | 8                            |
| Sultanmurat    | n.a.               | 112678             | 498512             | n.a.                 | 342                  | n.a.                 | 21                           |
| Ulubey         | 26764              | 63397              | 222006             | 137                  | 250                  | 729                  | 37                           |
| Yavuzselim     | 129830             | 196313             | 1222500            | 51                   | 523                  | 842                  | 17                           |
| Yigitler       | 28550              | 56088              | 179300             | 96                   | 220                  | 528                  | 17                           |
| <b>AVERAGE</b> | <b>122408</b>      | <b>161933</b>      | <b>644442</b>      | <b>32</b>            | <b>298</b>           | <b>426</b>           | <b>18</b>                    |

Source of Land Prices and Distance: Taşan. T. 1996.

The maximum increase in the land price was in Plevne, which was close to Telsizler housing area (3453%). According to municipal authorities, there was a property problem and after 1990 with solution of the property problem, there was a rapid land

price increase in Plevne. On the contrary, the maximum decrease in land prices was in Çalışkanlar. According to municipality, this neighborhood did not attract squatter population, although it has an improvement plan. As a result of long implementation process of this improvement plan, land price was decreased in Çalışkanlar.

Table 5.34 shows the land prices of neighborhoods with improvement plans in 1984-1989 period in Çankaya Municipality. As can be observed from the Table, the average land price decreased (-24%) during 1984-1994 and the average distance from city was 11 km.

Table 5.34. Land Prices of Neighborhoods with Improvement Plans in 1984-1989 Period in Çankaya

| NEIGHBORHOOD   | Land Price In 1986 | Land Price In 1990 | Land Price In 1994 | Change 1986-1990 (%) | Change 1990-1994 (%) | Change 1986-1994 (%) | Distance from city cent.(km) |
|----------------|--------------------|--------------------|--------------------|----------------------|----------------------|----------------------|------------------------------|
| Akpınar        | 35676              | 151390             | 156447             | 324                  | 3                    | 339                  | 8                            |
| Ata            | 36969              | 123278             | 145274             | 233                  | 18                   | 293                  | 42                           |
| Bağcılar       | 40920              | 173988             | 203763             | 325                  | 17                   | 398                  | 4                            |
| Boztepe        | 37324              | 166713             | 101875             | 347                  | -39                  | 173                  | 4                            |
| Cukurca        | 72395              | 842458             | 506115             | 1064                 | -40                  | 599                  | 5                            |
| Gökkuşığı      | 40270              | 137190             | 128073             | 241                  | -7                   | 218                  | 7                            |
| Huzur          | 58531              | 179481             | 177525             | 207                  | -1                   | 203                  | 6                            |
| Kırkkonaklar   | 22890              | 372803             | 306621             | 1529                 | -18                  | 1240                 | 5                            |
| Malazgirt      | 47932              | 171122             | 146700             | 257                  | -14                  | 206                  | 6                            |
| Mustafa Kemal  | 6213360            | 5764444            | 2241250            | -7                   | -61                  | -64                  | 8                            |
| Öveçler        | 192744             | 289562             | 246049             | 50                   | -15                  | 28                   | 29                           |
| Seyran         | 347205             | 564830             | 431566             | 63                   | -24                  | 24                   | 10                           |
| Yıldızevler    | 203262             | 523497             | 549683             | 158                  | 5                    | 170                  | 5                            |
| Yüzüncüyıl     | 514819             | 798334             | 444522             | 55                   | -44                  | -14                  | -                            |
| Zafertepe      | 41055              | 236144             | 217279             | 475                  | -8                   | 429                  | 15                           |
| <b>AVERAGE</b> | <b>527024</b>      | <b>699682</b>      | <b>400183</b>      | <b>33</b>            | <b>-43</b>           | <b>-24</b>           | <b>11</b>                    |

Source of Land Prices and Distance: Taşan. T. 1996.

Kırkkonaklar which has the highest population density changes has also the highest land price increase in 1984-1994 (124%). According to the authorities, this rapid increase in land price can be explained by the high population density. On the other hand, Mustafa Kemal has the lowest land price changes (-64%). This decline in land prices is due to two storeys proposal of the improvement plan. Before the improvement plan, land prices increased due to the speculation, but low storey proposal decreased the land prices.



Table 5.35. Land Prices of Neighborhoods with Improvement Plans in 1990-1996 Period in Çankaya

| NEIGHBORHOOD   | Land Price In 1986 | Land Price In 1990 | Land Price In 1994 | Change 1986-1990 (%) | Change 1990-1994 (%) | Change 1986-1994 (%) | Distance from city cent.(km) |
|----------------|--------------------|--------------------|--------------------|----------------------|----------------------|----------------------|------------------------------|
| Akpınar        | 35676              | 151390             | 156447             | 324                  | 3                    | 339                  | 8                            |
| Ata            | 36969              | 123278             | 145274             | 233                  | 18                   | 293                  | 42                           |
| Bağcılar       | 40920              | 173988             | 203763             | 325                  | 17                   | 398                  | 4                            |
| Boztepe        | 37324              | 166713             | 101875             | 347                  | -39                  | 173                  | 4                            |
| Cukuranbar     | 101944             | 160925             | 171215             | 58                   | 6                    | 68                   | 6                            |
| İlker          | 143969             | 122812             | 166260             | -15                  | 35                   | 15                   | 1                            |
| Karakusunlar   | 203929             | 602937             | 326000             | 196                  | -46                  | 60                   | -                            |
| Keklikpınarı   | 100714             | 190050             | 143440             | 89                   | -25                  | 42                   | 54                           |
| Ovecler        | 192744             | 289562             | 246049             | 50                   | -15                  | 28                   | 29                           |
| S.M.Meric      | 60693              | 124332             | n.a.               | 105                  | n.a.                 | n.a.                 | 5                            |
| <b>AVERAGE</b> | <b>95488</b>       | <b>210599</b>      | <b>18480</b>       | <b>121</b>           | <b>-91</b>           | <b>-81</b>           | <b>17</b>                    |

Source of Land Prices and Distance: Taşan. T. 1996.

In 1990-1996 period, the highest land price changes was in Bağcılar, in which storey rights had been given step by step (398%). In contrast, İlker, which has not been preferred by people so much due to hard topography and geography, has the lowest land price increase during the 1984-1994 (15%) (Table 5.35.).

Table 5.36. Land Prices of Neighborhoods with Improvement Plans in 1990-1996 Period in Etimesgut

| NEIGHBORHOOD   | Land Price In 1986 | Land Price In 1990 | Land Price In 1994 | Change 1986-1990 (%) | Change 1990-1994 (%) | Change 1986-1994 (%) | Distance from city cent.(km) |
|----------------|--------------------|--------------------|--------------------|----------------------|----------------------|----------------------|------------------------------|
| İstasyon       | 229476             | 286302             | n.a.               | 25                   | n.a.                 | n.a.                 | 114                          |
| Piyade         | 123103             | 106701             | n.a.               | -13                  | n.a.                 | n.a.                 | 18                           |
| 30ağustos      | 134127             | 138228             | n.a.               | 3                    | n.a.                 | n.a.                 | 123                          |
| <b>AVERAGE</b> | <b>162235</b>      | <b>177077</b>      | <b>n.a.</b>        | <b>9.5</b>           | <b>n.a.</b>          | <b>n.a.</b>          | <b>85</b>                    |

Source of Land Prices and Distance: Taşan. T. 1996.

Table 5.36 illustrates the land prices of neighborhoods with improvement plans in 1990-1996 period in Etimesgut municipality. Although this analysis is made by limited data, İstasyon, which is close to the public transportation system (railway) has the highest land price increase (25%). Piyade has the lowest land price changes in Etimesgut municipality (-13%).

Table 5.37. Land Prices of Neighborhoods with Improvement Plans in 1984-1989 Period in Keçiören

| NEIGHBORHOOD   | Land Price In 1986 | Land Price In 1990 | Land Price In 1994 | Change 1986-1990 (%) | Change 1990-1994 (%) | Change 1986-1994 (%) | Distance from city cent.(km) |
|----------------|--------------------|--------------------|--------------------|----------------------|----------------------|----------------------|------------------------------|
| Atapark        | 15757              | 63622              | 674820             | 304                  | 961                  | 4183                 | 9                            |
| Ayvalı         | 174700             | 141194             | 1675278            | -19                  | 1087                 | 859                  | 44                           |
| Bağlarbaşı     | 233035             | 146580             | 1513553            | -37                  | 933                  | 549                  | 57                           |
| Güçlükaya      | 166879             | 340278             | 1994176            | 104                  | 486                  | 1095                 | 7                            |
| İncirli        | 123432             | 173345             | 2032185            | 40                   | 1072                 | 1546                 | 43                           |
| Kuşcağız       | 12609              | 90366              | 1146332            | 617                  | 1169                 | 8991                 | 52                           |
| 19 mayıs       | 150793             | 433667             | 2465897            | 188                  | 469                  | 1535                 | 7                            |
| Ş. Kubilay     | 9092               | 40726              | 847274             | 348                  | 1980                 | 9219                 | 9                            |
| Ufuktepe       | n.a.               | 34755              | 680405             | n.a.                 | 1858                 | n.a.                 | 10                           |
| Yayla          | 10879              | 54968              | 380333             | 405                  | 592                  | 3396                 | 29                           |
| <b>AVERAGE</b> | <b>99686</b>       | <b>151950</b>      | <b>1341025</b>     | <b>52</b>            | <b>783</b>           | <b>1245</b>          | <b>27</b>                    |

Source of Land Prices and Distance: Taşan. T. 1996.

Table 5.37. illustrates the land prices of neighborhoods with improvement plans in 1984-1989 period in Keçiören . The average land price change was 1245% during the 1984-1994. The highest land price increase was in Şehit Kubilay (9219). According to the municipal authorities, the main reason for this increase was spreading of the settlement with improvement plan. Thus, rent expectation of speculators was increased and land prices changed rapidly. On the contrary, Bağlarbaşı has the lowest land price increase in this period (549%). Speculation did not effect this area because all neighborhood was covered by squatters. Thus, there was no rapid increase in land prices of this neighborhood.

Table 5.38. shows the land prices of neighborhoods with improvement plans in 1990-1996 period in Keçiören . The average land price change was 1009% during the 1984-1994.

Yükseltepe has the highest land price increase in this period (4362%). According to the municipality, speculation area was spread by improvement plan and on the contrary, in Aktepe, which has the lowest land price increase (325%), speculation area was limited by improvement plan.



Table 5.38. Land Prices of Neighborhoods with Improvement Plans in 1990-1996 Period in Keçiören

| NEIGHBORHOOD   | Land Price In 1986 | Land Price In 1990 | Land Price In 1994 | Change 1986-1990 (%) | Change 1990-1994 (%) | Change 1986-1994 (%) | Distance from city cent.(km) |
|----------------|--------------------|--------------------|--------------------|----------------------|----------------------|----------------------|------------------------------|
| Taşlıtepe      | 19042              | n.a.               | n.a.               | n.a.                 | n.a.                 | n.a.                 | 9                            |
| Aktepe         | 204393             | 165821             | 684600             | -19                  | 313                  | 235                  | 51                           |
| Bademlik       | 46202              | 78020              | 533499             | 69                   | 584                  | 1055                 | 10                           |
| Basınevler     | 95838              | 212402             | 1604022            | 122                  | 655                  | 1574                 | 5                            |
| Çaldıran       | 27193              | 32586              | 843253             | 20                   | 2488                 | 3001                 | 7                            |
| Esertepe       | 42080              | 93034              | 1516389            | 121                  | 1530                 | 3504                 | 47                           |
| Güzelyurt      | 67493              | 54317              | 560394             | -20                  | 932                  | 730                  | 10                           |
| Köşk           | 69123              | 62205              | 840102             | -10                  | 1251                 | 1115                 | 9                            |
| Şahlar         | 193614             | n.a.               | n.a.               | n.a.                 | n.a.                 | n.a.                 | 9                            |
| Uyanış         | 170781             | 112872             | 949720             | -34                  | 741                  | 456                  | 9                            |
| Yükseltepe     | 13779              | 57685              | 652000             | 319                  | 1030                 | 4632                 | 10                           |
| Yeşiloz        | 26757              | 71978              | 906280             | 169                  | 1159                 | 3287                 | 54                           |
| Yesiltepe      | 13990              | 42048              | 643850             | 201                  | 1431                 | 4502                 | 10                           |
| 23 nisan       | 104650             | 55390              | 677808             | -47                  | 1124                 | 548                  | -                            |
| <b>AVERAGE</b> | <b>78210</b>       | <b>86530</b>       | <b>867660</b>      | <b>11</b>            | <b>903</b>           | <b>1009</b>          | <b>19</b>                    |

Source of Land Prices and Distance: Taşan, T. 1996.

As can be seen from the Table 5.39, the average land price increase in Mamak Municipality during the 1984-1994 was 235% and average distance from the city center was 25 km.

Yatık Musluk has the highest land price increase with 611% in this period. According to the authorities, these rapid increase was mainly due to proximity the Siteler Industry Area. Bahçelerüstü, where the construction was prohibited, has the lowest value, (-1392%).

Table 5.39. Land Prices of Neighborhoods with Improvement Plans in 1984-1989 Period in Mamak

| NEIGHBORHOOD | Land Price In 1986 | Land Price In 1990 | Land Price In 1994 | Change 1986-1990 (%) | Change 1990-1994 (%) | Change 1986-1994 (%) | Distance from city cent.(km) |
|--------------|--------------------|--------------------|--------------------|----------------------|----------------------|----------------------|------------------------------|
| Araplar      | 182532             | 69067              | 225918             | -62                  | 227                  | 24                   | -                            |
| Aşıkveysel   | 21465              | 1270365            | 1027276            | 5818                 | -19                  | 4686                 | 50                           |
| B. üstü      | 595945             | 131311             | 273840             | -78                  | 109                  | -54                  | 27                           |
| Çağlayan     | 85874              | 98975              | 244500             | 15                   | 147                  | 185                  | 5                            |
| Derbent      | 558603             | 70189              | 360882             | -87                  | 414                  | -35                  | 43                           |
| Dostlar      | 31443              | 62867              | 277100             | 100                  | 341                  | 781                  | 9                            |
| Gülseren     | 78095              | 520224             | 473678             | 566                  | -9                   | 507                  | 32                           |
| Gülveren     | 43414              | 501064             | 516239             | 1054                 | 3                    | 1089                 | 27                           |

Table 5.39. (Cont.)

|                |               |               |               |            |           |            |           |
|----------------|---------------|---------------|---------------|------------|-----------|------------|-----------|
| G.Zekidogan    | 247750        | 329223        | 558857        | 33         | 70        | 126        | 5         |
| KüçükKayas     | 107359        | 439860        | 497150        | 310        | 13        | 363        | 71        |
| Kazımorbay     | n.a.          | 468063        | 387125        | n.a.       | -17       | n.a.       | 4         |
| Misket         | -31561        | 160423        | 407500        | -608       | 154       | -1391      | 5         |
| Mutlu          | 18036         | 140294        | 362186        | 678        | 158       | 1908       | 4         |
| Peyamısefa     | 145410        | 193695        | 417769        | 33         | 116       | 187        | 4         |
| Sahapgürler    | 362546        | 153734        | 260284        | -58        | 69        | -28        | 8         |
| Sahıntepe      | 67884         | 201548        | 529696        | 197        | 163       | 680        | 5         |
| Tuzlucayır     | 14195         | 120168        | 768429        | 747        | 539       | 5313       | 33        |
| Uregil         | 143702        | 293942        | 477427        | 105        | 62        | 232        | 51        |
| Yatıkmsluk     | 6134          | 442592        | 380333        | 7115       | -14       | 6100       | 29        |
| Şafaktepe      | -101815       | 482781        | 570554        | 374        | 18        | 460        | 21        |
| Yeşilbayır     | 60588         | 209400        | 271721        | 246        | 30        | 348        | 61        |
| <b>AVERAGE</b> | <b>131880</b> | <b>302847</b> | <b>442308</b> | <b>130</b> | <b>46</b> | <b>235</b> | <b>25</b> |

Source of Land Prices and Distance: Taşan. T. 1996.

Table 5.40. Land Prices of Neighborhoods with Improvement Plans in 1990-1996 Period in Mamak

| NEIGHBORHOOD   | Land Price In 1986 | Land Price In 1990 | Land Price In 1994 | Change 1986-1990 (%) | Change 1990-1994 (%) | Change 1986-1994 (%) | Distance from city cent.(km) |
|----------------|--------------------|--------------------|--------------------|----------------------|----------------------|----------------------|------------------------------|
| Ş. C. Topel    | 856066             | 116745             | 847274             | -86                  | 626                  | -1                   | 9                            |
| Bogazıcı       | 765378             | 210103             | 438921             | -73                  | 109                  | -43                  | 43                           |
| Türközü        | n.a.               | 418799             | 407500             | n.a.                 | -3                   | n.a.                 | 21                           |
| Akdere         | 918242             | 162088             | 478894             | -82                  | 196                  | -48                  | 18                           |
| Altağac        | 86554              | 314100             | 228200             | 263                  | -27                  | 164                  | 6                            |
| Bahçelerici    | 41919              | 298919             | 393835             | 613                  | 32                   | 840                  | 35                           |
| Ege            | 2573               | 136110             | 346416             | 5190                 | 155                  | 13364                | 7                            |
| Derbent        | 558603             | 70189              | 360882             | -87                  | 414                  | -35                  | 43                           |
| Hürel          | 93503              | 340275             | 309700             | 264                  | -9                   | 231                  | 4                            |
| Hüseyingazi    | 38602              | 462509             | 512635             | 1098                 | 11                   | 1228                 | -                            |
| Harman         | 166196             | 879480             | 315704             | 429                  | -64                  | 90                   | 31                           |
| Karaagac       | 193880             | 628200             | 380279             | 224                  | -39                  | 96                   | 38                           |
| Kartaltepe     | n.a.               | 349000             | 337550             | n.a.                 | -3                   | n.a.                 | 25                           |
| Y. kartaltepe  | 49075              | 161941             | n.a.               | 230                  | -100                 | -100                 | 4                            |
| <b>AVERAGE</b> | <b>314215</b>      | <b>324890</b>      | <b>412138</b>      | <b>3</b>             | <b>27</b>            | <b>31</b>            | <b>22</b>                    |

Source of Land Prices and Distance: Taşan. T. 1996.

Table 5.40. shows the land prices of neighborhoods with improvement plans in 1990-1996 period in Mamak. The average land price changes was 31% during the 1984-1994 and the average distance from city center was 22 km.

The highest value was 13364% in Ege neighborhood, in which Urban Transformation Project (Ege Kentsel Dönüşüm Projesi) started to be implemented. On the other

hand, Akdere has the lowest value with -48%. Like Bahçelerüstü, construction was prohibited in this neighborhood as well.

Table 5.41 shows the land prices of neighborhoods with improvement plans in 1984-1989 period in Yenimahalle. Average change in land price during the 1984-1994 was 314% and average distance from the city center was 14km.

Pamuklar has the highest land price increase with 1389%. According to the municipality, additional storey rights had been given step by step to this area and this caused rapid land price increase.

Güzelyaka has the lowest value in this period (94%). This situation can be explained by having high existing population density and failure for speculation.

As a conclusion, land prices have been effected mainly to improvement plan implementations in the city. Moreover, existing construction condition and geographical condition (distance to city center, accessibility to social and technical infrastructure etc. ) also directly effect the land prices.

Table 5.41. Land Prices of Neighborhoods with Improvement Plans in 1984-1989 Period in Yenimahalle

| NEIGHBORHOOD   | Land Price In 1986 | Land Price In 1990 | Land Price In 1994 | Change 1986-1990 (%) | Change 1990-1994 (%) | Change 1986-1994 (%) | Distance from city cent.(km) |
|----------------|--------------------|--------------------|--------------------|----------------------|----------------------|----------------------|------------------------------|
| Burç           | 34105              | 108029             | 141272             | 217                  | 31                   | 314                  | 9                            |
| Çiğdemtepe     | 57921              | 115170             | 165282             | 99                   | 44                   | 185                  | 10                           |
| Demet          | 255770             | 609729             | 1467000            | 138                  | 141                  | 474                  | 8                            |
| Güventepe      | 27465              | 118604             | 156333             | 332                  | 32                   | 469                  | 8                            |
| Güzelyaka      | 138486             | 186715             | 268298             | 35                   | 44                   | 94                   | 8                            |
| Kaletepe       | 30264              | 102281             | 116138             | 238                  | 14                   | 284                  | 9                            |
| Karşıyaka      | 223978             | 521688             | 749767             | 133                  | 44                   | 235                  | 48                           |
| Kayalar        | 22611              | 168337             | 157572             | 644                  | -6                   | 597                  | 8                            |
| Pamuklar       | 4978               | 118834             | 74120              | 2287                 | -38                  | 1389                 | -                            |
| <b>AVERAGE</b> | <b>88398</b>       | <b>227710</b>      | <b>366198</b>      | <b>156</b>           | <b>61</b>            | <b>314</b>           | <b>14</b>                    |

Source of Land Prices and Distance: Taşan. T. 1996.

Table 5.42 shows the changes in land prices according to districts with reference to distance to city center. The areas which are not close to the city center have higher land price increase with comparison to districts which are close to the city center, because the areas near the center are already improved and transformed (Figure 5.3.).



Table 5.42. Land Prices of Districts with Improvement Plans in 1986-1994

| DISTRICT       | Land Prices of Districts with Improvement Plans in 1986-1989 |                     |                     |                      |                      |                      | Land Prices of Districts with Improvement Plans in 1990-1994 |                     |                     |                     |                      |                      |                      |                           |
|----------------|--|---------------------|---------------------|----------------------|----------------------|----------------------|--|---------------------|---------------------|---------------------|----------------------|----------------------|----------------------|---------------------------|
|                | Land Price In 1986*  | Land Price In 1990* | Land Price In 1994* | Change 1986-1990 (%) | Change 1990-1994 (%) | Change 1986-1994 (%) | Distance from city center                                    | Land Price In 1986* | Land Price In 1990* | Land Price In 1994* | Change 1986-1990 (%) | Change 1990-1994 (%) | Change 1986-1994 (%) | Distance from city center |
| Altındağ       | 99658  | 88181               | 399918              | -12                  | 354                  | 301                  | 16   | 122408              | 161933              | 644442              | 32                   | 298                  | 426                  | 18                        |
| Çankaya        | 527024   | 699682              | 400183              | 33                   | -43                  | -24                  | 11   | 95488               | 210599              | 18480               | 121                  | -91                  | -81                  | 17                        |
| Etimesgut      | -  | -                   | -                   | -                    | -                    | -                    | -  | 162235              | 177077              | n.a.                | 9.5                  | n.a.                 | n.a.                 | 85                        |
| Keciören       | 99686  | 151950              | 1341025             | 52                   | 783                  | 1245                 | 27   | 78210               | 86530               | 867660              | 11                   | 903                  | 1009                 | 19                        |
| Mamak          | 131880   | 302847              | 442308              | 130                  | 46                   | 235                  | 25   | 314215              | 324890              | 412138              | 3                    | 27                   | 31                   | 22                        |
| Yenimahalle    | 88398  | 227710              | 366198              | 156                  | 61                   | 314                  | 14   | n.a.                | n.a.                | n.a.                | n.a.                 | n.a.                 | n.a.                 | n.a.                      |
| <b>AVERAGE</b> | <b>189329</b>  | <b>294074</b>       | <b>589926</b>       | <b>55</b>            | <b>101</b>           | <b>212</b>           | <b>19</b>  | <b>154511</b>       | <b>192206</b>       | <b>485680</b>       | <b>24</b>            | <b>153</b>           | <b>214</b>           | <b>32</b>                 |

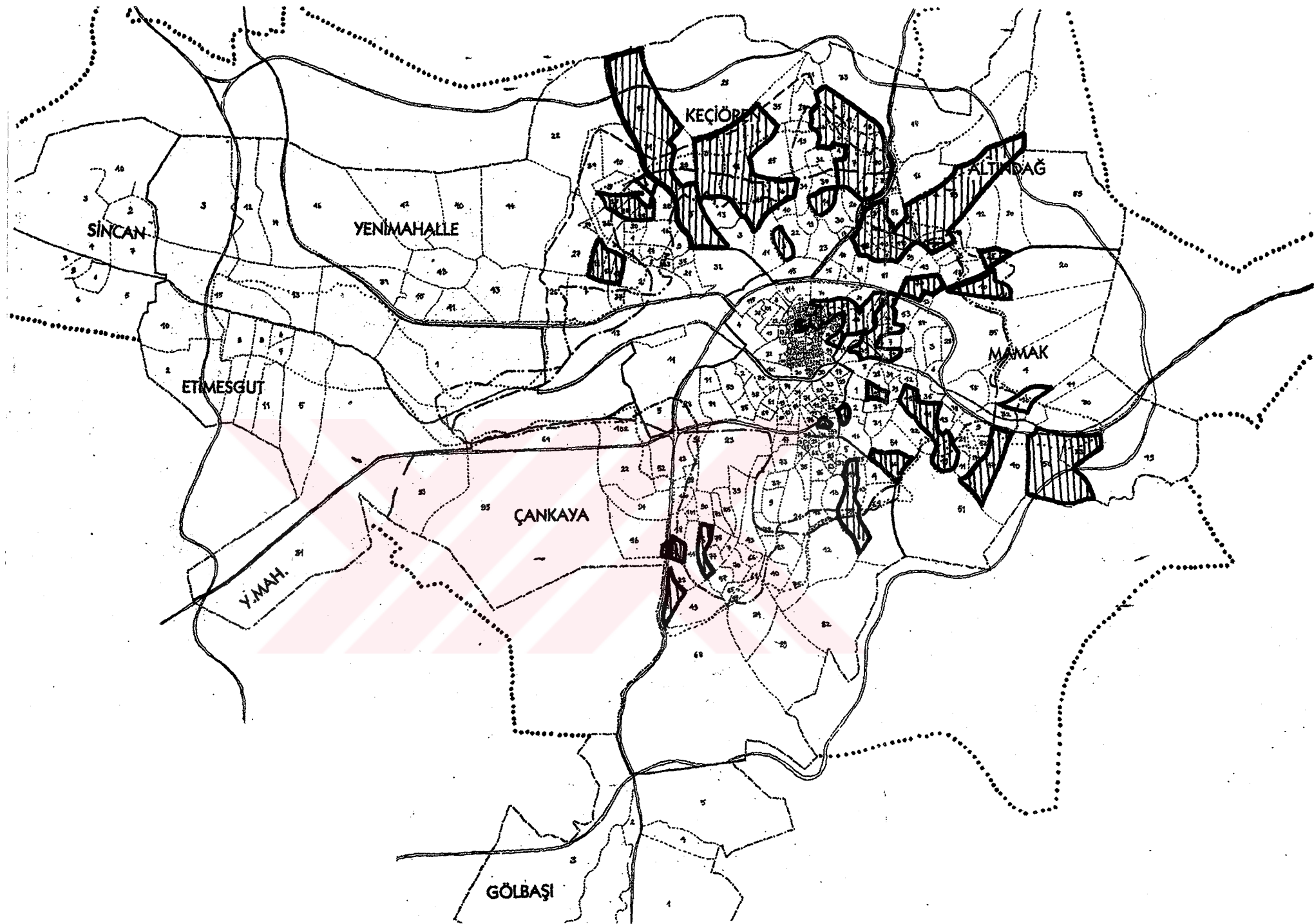


Figure 5.3. Neighborhoods Which Have Land Prices Above The Average

Source: Field Survey

After giving these detailed studies related to the effects of improvement plans on population density, social technical infrastructure and land prices of squatter areas for total Ankara, a case study conducted in the 4<sup>th</sup> Street in Yıldız neighborhood will be explained. Up to now, all datas related to improvement plans were caculated from the municipalities. But now, to reach the real results, real datas were obtained from the transformed areas (from squatter house to apartment house) and actors of this transformation process.

### **5.3. A Case Study in Yıldız**

#### **5.3.1. General Information About The Case Area**

This case study was conducted in the 4<sup>th</sup> Street in Yıldız neighborhood, in order to evaluate the outcome of transformation process of squatter houses with improvement plans. The case study was conducted in the form of interviews with different actors, who are squatter house owners -(10), building contractors -(10) and new residential units owners -(20), in improvement plan areas. Interviews were conducted with 10 transformed block (from squatter house to apartment house blocks) actors on or close to the 4<sup>th</sup> Street.

The case area, Yıldız, is in the Çankaya Municipal Boundary and in the south of Ankara. Güzeltepe neighborhood on the north, Hilal neighborhood on the south, Sancak neighborhood on the east and İlkadım, N. Çakır and M. Akkuş neighborhoods on the west are the adjacent neighborhoods of Yıldız. It attracts people because the biggest recreational areas like Seğmenler, Botanik and commercial centers like Tunalı Hilmi and Köroğlu avenues are very close to there (Figure 5.4.).

When the physical conditions of Yıldız is analyzed, it can be observed that some of the neighborhoods are unsuitable for settlement in terms of topography and other natural features (Altaban, 1987: 135). Thus, supplying technical and social infrastructure is crucial there because of these natural obstacles. On the other hand,



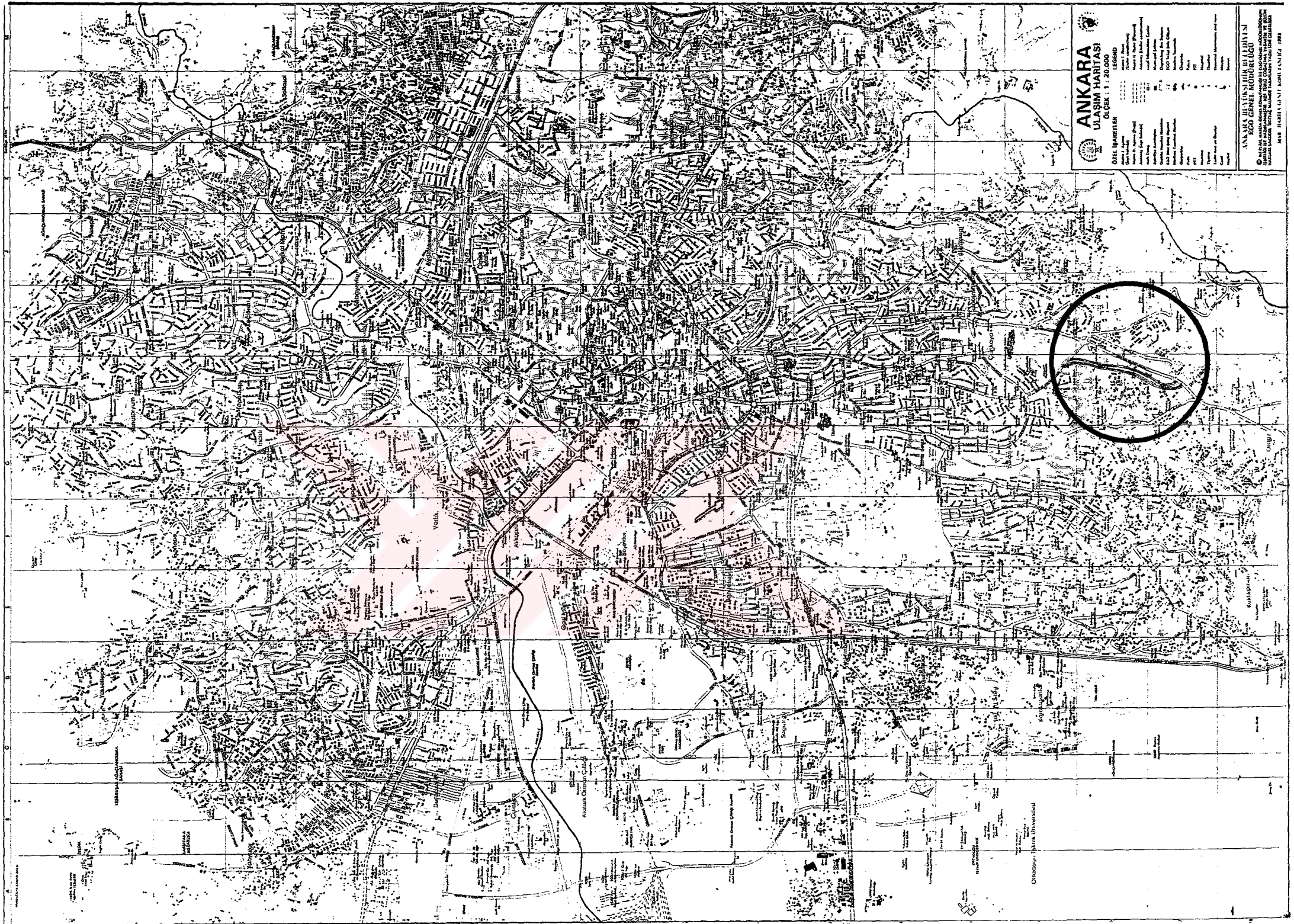


Figure 5.4. Location of the Case Area

Source: Çankaya Municipality



other parts of the neighborhood especially the 4<sup>th</sup> Street is more suitable for settlement in terms of topography and natural features.

The first squatter house settlement was observed in the 1950s in Yıldız. This squatter house construction process continued until the 1970s. Thus, Ankara's natural air corridors and drainage channels, which were protected by Jansen and Yücel-Uybadin Plans, are almost all closed and clogged by these illegal developments (Altaban, 1987: 137).

Yıldız was a vacant and cultivated area in the 1950's. This uncontrolled vacancy attracted newcomers, who were mostly in low income groups and who could not satisfy their shelter needs in the legal housing market so they confiscated the vacant cultivated land in the 4<sup>th</sup> Street, also vacant and cultivated belonged to the treasury and the municipality. Especially after 1955 the number of squatter houses rose rapidly in Yıldız as in other parts of Çankaya.

Legalization and regularization laws could not solve the squatting problem so a new planning approach, Improvement Plan, was introduced. Parallel to other squatter house areas improvement planning works, an improvement plan was developed for Yıldız in 1988. After the Act No:2981, which was the starting point of a new period where squatter houses were almost awarded by receiving shares from the increase of urban rent due to improvement plans (Türksoy, 1996:9), and this improvement planning work, transformation process from squatter house to apartment house block gained speed.

4<sup>th</sup> Street is in the center of Yıldız and close to the commercial areas on the Atatürk Boulevard. The first squatter house settlement was seen in the 1950 as in Yıldız in general. The reason for studying the 4<sup>th</sup> Street is because transformation of squatter house to apartment house is almost all completed and this street is very close to the commercial center of Yıldız neighborhood.

The land ownership of Yıldız is researched from the municipality. The squatter house legalization process, which was started in 1948 with the Act 5218, is also the starting point of transformation process of treasury lands to private lands. Almost all of the neighborhood was under the treasury and municipality ownership in these years, it was begun pass into the squatter house owners hands. This transformation process continued up to the improvement plan. Before the improvement there was only 13000 m<sup>2</sup> (2 % of the neighborhood) treasury land, 43000 m<sup>2</sup> (6 % of the neighborhood) Ankara municipality's land and 80000 m<sup>2</sup> (10 % of the neighborhood) Çankaya municipality's land existed. The rest of the neighborhood, which was 684000 m<sup>2</sup>, was under the private ownership (82 % of the neighborhood). After the improvement plan these treasury and municipal lands values changed in the favor of private ownership. Most of the treasury and municipal lands which were covered by squatter house were transferred t the private ownership. At the end of the improvement plan implementation (parcellation plans) the percentage of lands under private ownership increased to 93.9 %, on the other hand, the rest of the neighborhood which also includes social infrastructure areas are only 6.7 % of the neighborhood. This decrease in the treasury lands is not only the problem of Yıldız squatter house area, it is also the problem of whole squatter house area of Ankara. Transferring treasury lands to private lands is very crucial problem in the planning. As known, if there is no public land to plan, supplying adequate social and technical infrastructure will become the farthest target to reach for improvement plans.

Table 5.42. Transferred Land From Treasury To Private Ownership With Improvement Plans

| Ownership     | Before Imp. Plan |            | After Imp. Plan |            |
|---------------|------------------|------------|-----------------|------------|
|               | m <sup>2</sup>   | %          | m <sup>2</sup>  | %          |
| Treasury      | 13000            | 2          | 55000           | 6.7        |
| Ank. Mump.    | 43000            | 6          |                 |            |
| Çankaya Mump. | 80000            | 10         |                 |            |
| Private       | 684000           | 82         | 765000          | 93.3       |
| <b>TOTAL</b>  | <b>820000</b>    | <b>100</b> | <b>820000</b>   | <b>100</b> |

Source: Field Survey

### 5. 3. 2. Case Studies

After giving general information about the case area and the changes in the land ownership in Yıldız with improvement plan, cases will be given there. As mentioned above, all these cases were conducted in the form of interviews with the transformation process actors who are squatter house owners (10 person), building contractors (10 person) and new residential units owners (20 person).

Some of these cases (new apartment houses) are located on the 4<sup>th</sup> Street and the others are located a side street connected Turan Güneş Avenue and 4<sup>th</sup> Street.

Questions which were asked in the interviews with the actors can be seen in Appendix E.

**Case 1:** Squatter house owner was born in Tokat in 1938. He was graduated from primary school and he was retired as a worker from a job out of the country. When he came to Ankara in 1960, he confiscated a plot in the 4<sup>th</sup> Street approximately 1000 - 1200 TL. He and five other partners, who were mostly relatives -came from Tokat or the same birth place, built 2 squatter houses with 2 storeys each in the same plot. There was a big garden on the rest of the plot on which vegetables and fruit trees were grown.

The size of the plot was approximately 1300 m<sup>2</sup>. There was housing in the adjacent plots were and there is a slight slope in this area. The crucial problem was then the lack of roads.

In the year 1992, squatter house owners and a building contractor, agreed to built an apartment house. Building contractor would give 50% of the apartment house plus an amount of money to squatter house owners, who were 6 partners.

Information as to the construction process of the apartment house was obtained in the interview with the building contractor, who was born in Niğde in 1953 and graduated

from lise. The apartment house was constructed in four years and the building contractor used temporary workers. The reason for the long construction process according to building contractor, was due to different boundary problems with the owners of the adjacent plots.

New apartment house has a base of 620 m<sup>2</sup> and has 5 storeys. There are also two additional storeys gained from the slope of the plot. It has 14 residential units all occupied at present and 4 shops owned by the building contractor in the entrance storey. Although there are open and closed car parks and doorkeeper unit, there is no play/green area.

New residential units owners, including squatter house owners, who were born between the years, 1930 and 1950 in different cities of the country, were mostly graduated from lise and university and they generally work on the middle/high level of public works or they have firms of their own.

According to all the actors the most important problem of this neighborhood/4<sup>th</sup> Street is lack of asphalt roads (The photograph of the case can be seen in Appendix D).

**Case 2:** Bulgaria was the birth place of the first squatter house owner. He was born there in 1930 and graduated from primary school and he had a shop there. He came to Ankara in 1955, confiscated a plot in the 4<sup>th</sup> Street and constructed 3 squatter houses for his family. All of these squatter houses had single stories and they surrounded by a cultivated garden.

The size of the plot was approximately 1000 m<sup>2</sup> and it is situated on the 4<sup>th</sup> Street. There is housing in the adjacent plots and there is a slight slope in this area. The crucial problem then again was the lack of roads.

Squatter house owner and building contractor agreed orally on a contract to built an apartment house in 1993. There was no other partners except the squatter owner and building contractor. They agreed to share 50% of this new apartment house.

Building contractor, who was born in Sivas in 1942 and graduated from lise, has a shop in addition to this job. He gave information about the construction process of the apartment house. Apartment house was constructed in two years and temporary workers were employed. There was no problem with the owners of the adjacent plots or the municipality during this construction process.

New apartment house has a base of 660 m<sup>2</sup> and has 5 storeys. There is also an additional storey gained from the slope of the plot. It has 14 residential units and 2 shops only one of which is owned by the contractor in the entrance storey. There is closed car park and a doorkeeper unit, but there is no play/green area. All units are occupied.

Birth years and birth places of the new residential unit owners, including squatter house owners, are different from each other. But the common characteristics of them is they were mostly graduated from lise and they generally work on the middle/high level of public works or they have firms.

According to all actors the most important present problem of this neighborhood/4<sup>th</sup> Street is lack of asphalt roads (The photograph of the case can be seen in Appendix D).

**Case 3:** There are three owners in this case, two were born in Yozgat and one in Kırşehir between the years 1930 - 1935. They were mostly graduated from primary school. Two squatter house owners had small shops in Yozgat and the other was retired from Germany as a worker. They settled in this area in 1958 and built 5 single storey squatter houses surrounded by a garden.

The size of the plot was approximately 900 m<sup>2</sup> and it is situated on the 4<sup>th</sup> Street. There is housing in the adjacent plots and there is a slight slope in this area. The crucial problem as usual was the lack of roads in that period, a problem which still is the subject of complaint in the area.

In the year 1995, squatter house owners and a building contractor, agreed to built an apartment house. Building contractor would give 55% of the apartment house to three squatter house owners.

Information related to Construction process of the apartment house was obtained in the interview with the building contractor, who was born in Sivrihisar in 1943 and graduated from the university as a civil engineer. The apartment house was constructed in two years and building contractor used relatives and temporary workers in the building process. The delay due to buracratical operations involving approval of the architectural projects in the municipality was the main problem during this process according to the building contractor.

The new apartment house has a base of 600 m<sup>2</sup> and has 5 storeys. There are also two additional storeys gained from the slope of the plot. It has 16 residential units and 2 shops both owned by the contractor in the entrance storey. Although there are open and closed car parks and doorkeeper unit, there is no play/green area.

New residential units owners including squatter house owners, who were born between the years, 1930 and 1950 in different cities of the country, were mostly graduated from lise and university and they generally work on the middle/high level of public works or they have firms.

According to all three actors the most important problem of this neighborhood/4<sup>th</sup> Street at present is lack of asphalt roads (The photograph of the case can be seen in Appendix D).

**Case 4:** Ardahan was the birth place of the squatter house owner. He was born there in 1943 and graduated from primary school. In 1968 he brought a plot in the 4<sup>th</sup> Street and constructed a squatter house. He was a worker in a firm in Ankara. After a while he constructed another squatter house for his relatives so there were four owners in the area. At the beginning these squatter houses had single stories, but then one additional storey for each was constructed. They had a big garden in which vegetables and fruit trees were grown.

The size of the plot was approximately 920 m<sup>2</sup>. There is housing in the adjacent plots. The crucial problem then again was lack of roads.

Squatter house owners and building contractor agreed to built an apartment house in 1994. Building contractor would give 50% of the apartment house, an amount of money and 2 shops in the entrance storey to squatter house owners, who are 4 partners.

Building contractor, who was born in Adana in 1960 and graduated from the university. He is a lawyer and this apartment house construction is his first job as a building contractor. He still practices law in his private office. He gave information about the construction process of the apartment house. The apartment house was constructed in two years and temporary workers were employed. There was no problem with the owners of the adjacent plots or the municipality during this construction process.

The new apartment house has a base of 550 m<sup>2</sup> and has 5 storeys. It has 10 residential units, 2 shops on the entrance storey. There is a closed car park, but there is no play/green area and or a doorkeeper unit. The residential units although sold are still vacant.

New residential units owners were born between the years, 1940 and 1965 in different cities of the country (Adana, Bolu etc.). They were mostly graduated from lise and



they generally work in the middle/high level public works. On the other hand squatter house owners still residence this new apartment house.

According to the three actors the most important problem of this neighborhood/4<sup>th</sup> Street is lack of asphalt roads.

The apartment house is a very unique one with a very different and interesting facade as can be observed from the photograph in Appendix D. The contractor who spent some year in Sweden relayed that he had seen an apartment house with a facade like this one, he liked it very much, imported the construction material necessary to build such a facade from United States. He also built a duplex unit for himself at the top floor, in fact this being the reason why he built this apartment house.

**Case 5:** The four squatter house owners were born in Çankırı between the years 1930 - 1935. They were mostly graduated from primary school and they are relatives and retired from low level public work. They had small shops in Çankırı. They settled this area in 1965 and built 4 single storey squatter houses surrounded by a big garden.

The size of the plot was approximately 1150 m<sup>2</sup> and it is situated on the 4<sup>th</sup> Street. The use of its adjacent plots are residential. The crucial problem was the lack of roads.

In the year 1988, squatter house owners and a building contractor, agreed to built an apartment house. Building contractor would give 50% of the apartment house and a big shop, which is 290 m<sup>2</sup> to squatter house owners.

Construction process of the apartment house was inquired from the building contractor in an interview. He was born in Kayseri in 1946 and graduated from lise. Apartment house was constructed in six years and building contractor used temporary workers. The reason for the long construction process according to building contractor, was different problems with the adjacent plot and squatter house owners.



The new apartment house has a base of 650 m<sup>2</sup> and has 5 storeys. There are also two additional storeys gained from the slope of the plot. It has 12 residential units and 2 shops on the entrance storey one larger than the other left to the squatter owners. Although there are open and closed car parks and doorkeeper unit, there is no play/green area.

Birth years of the new residential unit owners are different from each other, and birth places are also different. But the common characteristics of them is that they are mostly graduated from lise and they generally work in the middle/high level of public works or they have firms. On the other hand squatter house owners still residence this new apartment house.

According to all three actors the most important problem of this neighborhood/4<sup>th</sup> Street is the lack of asphalt roads (The photograph of the case can be seen in Appendix D).

**Case 6:** Samsun was the birth place of the first squatter house owner. He was born in 1940 and graduated from primary school and he was a worker there. He came to Ankara in 1961 and constructed a squatter house in this neighborhood. After a while 5 squatter houses with single stories were constructed for his relatives and other partners. There was a big garden in which vegetables and fruit trees were grown.

The size of the plot was approximately 1080 m<sup>2</sup> and it is located on a side street connected Turan Güneş Avenue and the 4<sup>th</sup> Street. The use in the adjacent plots was residential. The crucial problem was then as it is now lack of roads.

Squatter house owners and building contractor agreed to built an apartment house in 1991. Building contractor would give 50% of the apartment house to squatter house owners, who are 5 partners.

Construction process of the apartment house was inquired from the building contractor, who was born in Ankara in 1943 and graduated from lise. Apartment

house was constructed in three years and building contractor used temporary workers. There was no problem with owners of the adjacent plots or with the municipality during this construction process.

The new apartment house has a base of 600 m<sup>2</sup> and has 5 storeys. It has 14 residential units, 4 shops on the entrance storey. There is an open car park and doorkeeper unit, but there is no play/green area.

Birth years of the new residential unit owners are different from each other as their birth places are. But the common characteristics of them is they are mostly graduated from lise and they generally work on the middle/high level of public works or they have firms. On the other hand squatter house owners still residence this new apartment house.

According to actors the most important problem of this neighborhood/4<sup>th</sup> Street is lack of asphalt roads (The photograph of the case can be seen in Appendix D).

**Case 7:** Squatter house owner was born in Gümüşhane in 1919. He was just literate and he was a worker in Ankara. He settled in this area in 1958 and built a single storey squatter house surrounded by a garden. After a while he and his three brothers constructed three additional squatter houses for themselves. They had a big garden in which vegetables and fruit trees were grown.

The size of the plot was approximately 860 m<sup>2</sup> and it is located on a side street connected Turan Güneş Avenue and the 4<sup>th</sup> Street. The use in the adjacent plots was residential. The crucial problem then was lack of roads.

In the year 1995, squatter house owners and a building contractor agreed to built an apartment house. Building contractor would give 50% of the apartment house to squatter house owners, who were 4 partners.

Information as to construction process of the apartment house was obtained in the interview with the building contractor, who was born in Kalecik in 1950 and graduated from lise. The apartment house was constructed in two years and building contractor used temporary workers.

The new apartment house has a base of 500 m<sup>2</sup> and has 5 storeys. It has 10 residential units and 2 shops on the entrance storey. Although there is closed car park and doorkeeper unit, there is no play/green area.

New residential units owners including squatter house owners, who were born between the years 1930 and 1950 in different cities of the country, were mostly graduated from lise and university and they generally work on the middle/high level of public works or they have firms of their own.

According to all actors the most important problem of this neighborhood/4<sup>th</sup> Street is lack of asphalt roads (The photograph of the case can be seen in Appendix D).

**Case 8:** Nevşehir was the birth place of the first squatter house owner. He was born there in 1932 and graduated from primary school . He retried as a worker from a firm. He came to Ankara in 1967 and constructed a single storey squatter house for his family. The squatter house surrounded by a garden.

The size of the plot was approximately 950 m<sup>2</sup> and it is located on a side street connected Turan Güneş Avenue and the 4<sup>th</sup> Street. There is housing in the adjacent plots and there is a slight slope on this area. The crucial problem was lack of roads.

Squatter house owner and building contractor agreed to built an apartment house in 1993. Building contractor would give 50% of this new apartment house to the two partners.

Building contractor, who was born in Siirt in 1942 and graduated from primary school, has a shop in addition to this job. He gave information about the construction

process of the apartment house. Apartment house was constructed in four years and temporary workers were employed. There was no problem with adjacent plots or the municipality during this construction process.

The new apartment house has a base of 600 m<sup>2</sup> and has 5 storeys. There is also an additional storey gained from the slope of the plot. It has 8 residential units and 2 shops only one of them is owned by the contractor on the entrance storey. There is closed car park and doorkeeper unit, but there is no play/green area.

Birth years and birth places of the new residential unit owners are different from each other. But the common characteristics of them is they were mostly graduated from lise and they generally work on the middle/high level of public works or they have firms. On the other hand squatter house owners still residence this new apartment house.

According to all actors the most important problem of this neighborhood/4<sup>th</sup> Street is lack of asphalt roads (The photograph of the case can be seen in Appendix D).

**Case 9:** Rize was the birth place of squatter house owner. He was born in 1938 and graduated from lise. He came to Ankara in 1974 and constructed a single storey squatter house. There was a big garden on which vegetables and fruit trees were grown.

The size of the plot was approximately 1150 m<sup>2</sup> and it is located on a side street connected Turan Güneş Avenue and the 4<sup>th</sup> Street. The use of the adjacent plots were residential. The crucial problem was lack of roads.

He was also building contractor of this new apartment house which was started to be constructed in 1993.

Apartment house was constructed in four years and he used temporary workers. There was no problem with the owners of the adjacent plots or the municipality during this construction process.

New apartment house has a base of 650 m<sup>2</sup> and has 5 storeys. All units of the apartment is using for commercial (4 shops). There is a closed car park, but there is no play/green area.

All units of the apartment block are not occupied at present (The photograph of the case can be seen in Appendix D).

**Case 10:** Squatter house owners were born in Çorum between the years 1930 - 1935. They were mostly graduated from primary school and they are relatives. They had small shops. They settled this area in 1963 and built 2 single storey squatter houses surrounded by a garden.

The size of the plot was approximately 1000 m<sup>2</sup> and it is situated on the 4<sup>th</sup> Street and there is a slight slope on this area. There was housing in the adjacent plots. The crucial problem was lack of roads.

In the year 1990, squatter house owners and a building contractor agreed to built an apartment house. Building contractor would give 50% of the apartment house and two shops to the squatter house owners, who were 2 partners.

Information as to the construction process of the apartment house was obtained in the interview with the building contractor, who was born in İstanbul in 1956 and graduated from lise. The apartment house was constructed in two years and building contractor used temporary workers.

The new apartment house has a base of 550 m<sup>2</sup> and has 5 storeys. There are also two additional storeys gained from the slope of the plot. It has 12 residential units and 4

shops on the entrance storey. Although there are open and closed car parks and doorkeeper unit, there is no play/green area.

Birth years and birth places of the new residential unit owners are different from each other. But the common characteristics of them is they were mostly graduated from lise and they generally work in the middle/high level of public works or they have firms. On the other hand squatter house owners still residence this new apartment house.

According to all actors the most important problem of this neighborhood/4<sup>th</sup> Street is lack of asphalt roads (The photograph of the case can be seen in Appendix D).

### **5. 3. 3. Results Of The Case Study**

#### **5. 3. 3. 1. Transformation Process Of Squatter Houses**

Transformation process of squatter houses was examined in three phases: the first phase is “Squatting Phase (before contract with building contractor)”. In order to determine the characteristics of properties, interviews with squatter house owners were conducted. On the other hand, in the second phase in this phase, which is “Transformation Phase (contract with building contractor)”, interviews with building contractors were conduct to reach more detailed information related to transformations and features of the new apartment house blocks. The third and the last phase is “New Apartment houses Phase (after the contract with building contractor)”. New residential unit owners and squatter house owners are the main actors of this phase. Features of the new apartment house blocks and problems related to social and technical infrastructure of this area are the main concern of these interviews.

#### **The First Phase : Squatting Phase (Before Contract With Building contractor):**

According to interviews with squatter house owners, plots were mostly occupied during the years 1950 - 1965 (Table 5.44 and Figure 5.5.).

Squatter house owners preferred Yıldız, because this vacant area which belonged to the treasury and the municipality in general, was under cultivation and suitable for settlement (in terms of slope). Squatter house were generally constructed at 60 100 m<sup>2</sup> with one story in large gardens as the plot sizes were approximately 800 - 1300 m<sup>2</sup>. Some of the squatter house, whose owners were relatives, were constructed on the same plot. There were fruit trees and vegetables like parsley, tomatoes, cucumber were grown in the large gardens of these squatter houses.

Table 5.44. Numbers Of Squatter Houses According To Years Of Construction

| Years       | No. of Sqt. Houses |
|-------------|--------------------|
| 1955 - 1960 | 4                  |
| 1960 - 1965 | 3                  |
| 1965 - 1970 | 2                  |
| 1970 - 1975 | 1                  |

Source: Field Survey, 1997

The most crucial problem in Yıldız was the lack of adequate roads along with other items of technical infrastructure (electricity, water etc.) which were not adequate either in this area.

**The Second Phase: Transformation Phase (Contract With Building Contractor):**

This is the phase when squatter house owners and building contractors came together for the construction of apartment house blocks. This phase started after the approval of the area improvement plan in 1988 and gained speed after 1990.

Since the plot sizes of these new apartment house blocks were approximately 800 - 1300 m<sup>2</sup>, four or five squatter house owners mostly relatives in the same lot had to become partners to come to an agreement with a building contractor to have comfortable houses.

Generally, 50 -55% of the housing units in the new apartment house is given to the squatter house owners (to all of the partners), the rest of the housing units remains for the building contractor. In some of the blocks squatter house owners are also given one or two shops in the entrance floors of the blocks.

Building contractors mostly prefer to work with the same crew, some of whom are relatives and others are temporary workers in construction process of the apartment house which generally takes 24 months. In some of the apartment houses this construction process takes more than 24 months. This delay is explained by building contractors as below:

“Approval of architectural projects in Municipality sometimes take six months, so this waiting process is loss of time. On the other hand, decrease in the plot sizes happen due to some problems with neighbors. All these obstacles takes lots of time in construction process”.

**The Third Phase: New Apartment house Blocks (After The Contract With Building Contractor):** New apartment house plots are approximately 800 - 1300 m<sup>2</sup>, and apartment houses are 500 -800 m<sup>2</sup>. They have five storeys (and one or two additional storeys gained from slope of land) and have 10 - 16 residential units. All blocks have open and/or closed car parks and their entrance stories are used for commercial aims. None of them has green / play area in their plots. Most of them have janitor/doorkeeper units in the apartment house (Figure 5.6.).

### **5.3.3.2. Changes In Population Density and Social and Technical Infrastructure**

To clarify the impacts of improvement plans on squatter areas, changes in population densities and social - technical infrastructure were searched in the 4<sup>th</sup> Street in Yıldız neighborhood.

Population density was conducted with 2 different ways. The first one is net population density in a plot (person/ha) before and after improvement plan. Second way is the m<sup>2</sup> of housing area per person before and after improvement plan. Average



number of person in a family was assumed 5 person/family before improvement plan and 4 person/family after improvement plans as a result of increase in the education level of the residences in the area. These 2 densities were calculated for the all ten cases in both period (Table 5.45).

Table 5.45 Changes In The Population Density In The 4<sup>th</sup> Street With Improvement Plan

| Case           | Before Imp. Plan |                              | After Imp. Plan |                              | Changes in Density (%) |                        |
|----------------|------------------|------------------------------|-----------------|------------------------------|------------------------|------------------------|
|                | person/ha<br>*   | m <sup>2</sup> /person<br>** | person/ha<br>*  | m <sup>2</sup> /person<br>** | person/ha              | m <sup>2</sup> /person |
| 1              | 231              | 13                           | 431             | 55                           | 87                     | 323                    |
| 2              | 1150             | 17                           | 560             | 60                           | 273                    | 253                    |
| 3              | 278              | 10                           | 711             | 47                           | 156                    | 370                    |
| 4              | 217              | 18                           | 435             | 69                           | 100                    | 283                    |
| 5              | 174              | 20                           | 417             | 68                           | 140                    | 240                    |
| 6              | 231              | 17                           | 519             | 54                           | 125                    | 218                    |
| 7              | 233              | 18                           | 465             | 63                           | 100                    | 250                    |
| 8              | 53               | 20                           | 337             | 94                           | 536                    | 370                    |
| 9              | 44               | 20                           | -               | -                            | -                      | -                      |
| 10             | 100              | 15                           | 480             | 57                           | 380                    | 280                    |
| <b>Average</b> | <b>171</b>       | <b>17</b>                    | <b>484</b>      | <b>63</b>                    | <b>183</b>             | <b>271</b>             |

Source: Field Survey

\* net population density in a plot (person/ha)

\*\* m<sup>2</sup> of housing area per person

The average net density changes is 183 %, from 171 person/ha to 484 person/ha, on the other hand, average changes in the m<sup>2</sup> of housing area per person is 271 %, from 17 m<sup>2</sup>/person to 183 m<sup>2</sup>/person.

Parallel to increase in the net density with the improvement plan, m<sup>2</sup> of residential unit per person increased with improvement plan. Contrary to increase in the population and housing density which means increase in the amounts of concrete blocks per person, the amounts of social and technical infrastructure per person does not increase fully.

Table 5.46 shows the social and technical infrastructure in Yıldız before and after improvement plan. Although improvement plan proposes social and technical infrastructure for this area it is not enough compared to the Act 3194.

Table 5.46 Changes In Social And Technical Infrastructure In Yıldız With Improvement Plan (m<sup>2</sup>/person)

|                         | Education | Health | Soc.Cult | Commer. | Green | Tech.Infr |
|-------------------------|-----------|--------|----------|---------|-------|-----------|
| <b>Before Imp. Plan</b> | 1.0       | 0.05   | -        | 0.3     | 0.8   | 3.0       |
| <b>After Imp. Plan</b>  | 1.2       | 0.1    | 0.3      | 0.7     | 1.5   | 7.3       |

Source: Field Survey

### 5.3.3.3. Socio - Demographic Characteristics of Actors

To clarify the demographic characteristics of Improvement Planning actors, who are squatter house owners, building contractors and new owners are studied. The results can be grouped under four topics: birth places, birth years, education's and occupations.

**Birth Places:** The squatter house owners migrated from different parts of the country, even from out of the country (Bulgaria). However most of the squatter house owners came from central Anatolian and Black Sea Regions.

Table 5.47 Birth Places of Actors of Transformation Process

| REGIONS        | Squatter Owner | Building Contractor | New Owner | TOTAL     |
|----------------|----------------|---------------------|-----------|-----------|
| Marmara        | -              | 1                   | 2         | 3         |
| Central        | 4              | 5                   | 6         | 15        |
| Southeast-east | 2              | 1                   | -         | 3         |
| South          | -              | 1                   | 4         | 5         |
| Aegean         | -              | -                   | 4         | 4         |
| Black Sea      | 4              | 2                   | 4         | 10        |
| <b>TOTAL</b>   | <b>10</b>      | <b>10</b>           | <b>20</b> | <b>40</b> |

Source: Field Survey

Building contractors are more evenly distributed among regions yet these migrating from central Anatolia are represented by higher percentages compared to other regions.

On the other hands, building contractors are also mostly from central Anatolian cities. The second region is Black Sea Region with the percentage of 20. different from each other in terms of birth places.

**Birth Years:** Birth years of squatter house owners are mostly between 1930 - 1940. On the other hand, building contractors are mostly born between the years 1940 - 1960. The youngest generation is the new residential units owners of this area. Indeed, 50 % of them were born between the years 1950 - 1960. Thus, there are three different age groups in the area (Table 5.48)

Table 5.48. Birth Years of Actors of Transformation Process

| Years        | Squatter Owner | Building Contractor | New Owner | TOTAL     |
|--------------|----------------|---------------------|-----------|-----------|
| - 1930       | 1              | -                   | -         | 1         |
| 1931 - 1940  | 7              | 1                   | 2         | 10        |
| 1941 - 1950  | 2              | 5                   | 4         | 11        |
| 1951 - 1960  | -              | 3                   | 10        | 13        |
| 1961 - 1970  | -              | 1                   | 4         | 5         |
| 1971 +       | -              | -                   | -         | -         |
| <b>TOTAL</b> | <b>10</b>      | <b>10</b>           | <b>20</b> | <b>40</b> |

Source: Field Survey

**Education Levels:** When the education levels of these actors were searched for, following results were obtained:

The squatter house owners were generally graduated from primary school. Building contractors and newcomers, on the other hand, from lise or university (Table 5.49). So the newcomers seem to be the best educated group in the area, the building contractors following them.

Table 5.49. Education Levels of Actors of Transformation Process

|                | Squatter Owner | Building Contractor | New Owner | TOTAL     |
|----------------|----------------|---------------------|-----------|-----------|
| Literate       | 1              | -                   | -         | 1         |
| Primary School | 8              | 1                   | -         | 9         |
| Lise           | 1              | 7                   | 8         | 16        |
| University     | -              | 2                   | 12        | 14        |
| <b>TOTAL</b>   | <b>10</b>      | <b>10</b>           | <b>20</b> | <b>40</b> |

Source: Field Survey

**Occupations:** In the last step occupations of squatter house owners, building contractors and new owners were searched (Table 5.50.)

The squatter house owners mostly work in or are retired from low level clerical or service jobs in public works or special firms. Moreover, their second generation generally work in their own firms in the shops in the entrance floors of these new blocks (barber, commercial, market etc.).

New owners are generally working in middle-high level of public works (like manager, president) or they have firms.

Table 5.50. Occupations of Actors

|                            | Squatter Owner  | Building contractor | New Owner | TOTAL     |           |
|----------------------------|-----------------|---------------------|-----------|-----------|-----------|
| P<br>U<br>B<br>L<br>I<br>C | high level      | -                   | 1         | 6         | 7         |
|                            | middle level    | -                   | -         | 6         | 6         |
|                            | low level       | 3                   | -         | -         | 3         |
|                            | commercial      | 3                   | 3         | 8         | 14        |
|                            | worker          | 4                   | -         | -         | 4         |
|                            | Bld. contractor | -                   | 6         | -         | 6         |
|                            | <b>TOTAL</b>    | <b>10</b>           | <b>10</b> | <b>20</b> | <b>40</b> |

Source: Field Survey

Some of the building contractors, on the other hand, have different additional jobs like lawyer, engineer.

Interviews were also conducted with an estate agent to inquire about the land prices of in the area. According to the agent land prices are approximately 60 - 80 million / m<sup>2</sup>, and flats are generally sold for 8 - 30 billion.

All these cases show that the original population in the area came from different rural locations mostly centralized in Black Sea and Central Anatolian regions. According to their year of arrival they either confiscated or bought the these vacant and /or cultivated treasury or municipal lands from previous confiscators. Having thus owned large plots they went on to build additional squatter houses for their relatives and children who got married. Finally with the enlargement of the city boundary when this area gained prestige with especially location of modern shops nearby, the building contractors entered the area.

As a conclusion, this brief survey clarifies a few points related to the implementation of improvement plans. First of all is obvious that improvement plans bring about a new physical and a new socio-demographic environment. As mentioned in the previous sections of this study;

- Both population and housing densities are increased,
- Floor area ratios are increased,
- Some area services (like play grounds or green area in this case) seem to be lacking,
- There is an obvious rent transfer as these squatter house owners who confiscated cultivated vacant land and built squatter house now became

owners of the modern high priced apartment house blocks and in certain cases owners of shops where they conduct business,

- There is now an interesting demographic blend in the area, of former squatter houses and going high middle class families in modern apartment house blocks,
- This transfer of housing stock has brought about an interesting contractor group, who are engaged in other professions as well and seem to earn money without investing much as they sell the residential units even before the construction is finished.



## **CHAPTER 6**

### **CONCLUSION**

Because of the inability to strike a balance between housing supply and demand in Turkey, the migrants have met their residential requirements through informal settlements, built particularly in the surrounding areas of large cities. In many cases, this illegal land acquisition and shelter provision process was the only option because public housing projects fell far short of demand and often benefited the middle classes rather than poor households.

In general, solution attempts for the problems of illegal housing areas, remained in the limits of legalization of squatter areas, instead of increasing the living conditions and standards in these areas. Moreover, legal regulations related to prevention, clearance and improvement of squatter areas remained insignificant in view of the problem itself. All these undertakings devoted to the solution of squatter area problems mainly aimed at solving the property problems of these areas.

This study, analyses the effects of one such solution attempt, in fact the latest one namely that of improvement plans on squatter areas and therefore the city in general, especially from the view points of population density, social and technical infrastructure and land prices, land ownership and socio-demographic structure.

The findings of this study can be summarized under following topics: population density, social technical infrastructure, land prices, land ownership and social and demographic characteristics of transformation areas.

*Population density:* It was observed in the study, at neighborhood level that, in general, all planning implementations increase the population density of planning areas. In fact if all the density proposals of the improvement plans for Ankara were fulfilled the city population would have reached nearly 5 million (1990 population is 3 million). Aside from the environmental problems the pressure that this population increase exert on the city is likely to create problems that would be very difficult and satisfy to solve. Besides the 2015 Master plan for Ankara is based on decentralization of the city population. On the other hand, if residential location is provided through the improvement plans this decentralization process will not be realized. If the needs of this additional population for adequate social-technical infrastructure are supplied, no problem occurs. But in squatter areas, where the topographical and existing housing tissue are the main obstacles, the needs of this additional population could not be supplied sufficiently. Thus, increase in population density of squatter areas brought important problems.

*Social and Technical Infrastructure:* Housing is a basic need. Reasonably good housing in a well-kept environment has profound effects not only on the well-being of the occupants but also on their health and productivity, and hence their contribution to their nations growth (Mellor, 1977:88). In this respect, adequate social and technical infrastructure for squatter areas is expected from improvement plans. Yet the area study showed that even proposed values for infrastructure were very limited when compared to the standards of Act No:3194. Amount of infrastructure, which need to be added according to Act No:3194, necessitates as much area as the improvement plan areas which are examined in this study. Besides the inadequacy of the proposals related to infrastructure and the emphasis of the plans on legalization of the property, there are other problems related to especially technical infrastructure. For example, there is controversial aspect in that although it may be cheaper to provide sewage for the squatter houses since they do not contain cellars and are



mostly located on slopes, still because density is low the service brought is shared by lower densities compared to high rise authorized urban areas. Besides new parcellation according to the improvement plans would necessitate building of a new system of technical infrastructure, as now a previous road under which technical infrastructure has been laid may be allocated as a lot for building but this would be extremely costly.

*Land Prices:* All planning activities effect the land prices of planning area. It can easily be observed from the results of this study, there are changes in land prices of squatter areas parallel to planning. Whilst in the 1930s and 1940s the price of building land could almost be taken granted in estimating the cost of a proposed building, it is no longer so. Over the past three decades, however, land has been commodified due mainly to the activities of speculators. Building plots which were acquired for 90 000 - 160 000 Turkish Liras in Ankara in 1986, were being sold for between 300 000 and 1 000 000 Turkish Liras in 1994.

An interesting result is, distance from city center is not a determining factor in changes in land prices. However, far from the city center, land prices of squatter areas can increase to highest values. Changes in land prices are independent from distance from city center as a result of improvement plans. In fact the urban tissue near the center is frozen in a way therefore land prices do not increase in relation to improvement, as there is nothing to improve in this tissue anyway. On the other hand, improvement in vacant peripheral land raises the land prices.

*Land Ownership:* The more legalization acts related to squatter areas were come into force, the more treasury lands were transferred over to private ownership. This transformation process has gained speed with improvement plans. Indeed, when the percentages of treasury and private lands are compared, significant decrease in treasury lands can be observed. One of the most important element for planning and proposing social and technical infrastructure, treasury land ownership, has been decreased by all these acts and improvement plans.

*Social and Demographic Characteristics:* As mentioned in previous chapters, population density is increased by improvement plans. Changes in population is not only in density but in also social and demographic structure. As a result of the case study in Yıldız it could be said that squatter areas on which poorer and less educated groups settled illegally, became the high rise housing areas on which middle-high or high income and more educated groups settled. Thus, improvement plans is used as a rent tool to satisfy the higher income groups housing needs.

It was stated at the beginning that this study was going to probe the positive and negative impacts of improvement plans in the urban areas for which plans have been made and on the urban area in general. So far the negative aspects have been summarized as:

- Increasing densities in the plan areas and stimulation of a more centralized growth in the urban area in general.
- Regradation of the environment due to failure to achieve parallel improvement of technical and social infrastructure.
- Increasing, in fact searing land prices in the peripheral areas of the city again leading to concentration in the central areas.

Yet this study focused on densities, infrastructure and land price, there is in fact there are other negative aspects one of which is very typical of the improvement plans, namely the transfer of rents to the squatter owners.

With the opportunity provided by the improvement plans to transform the squatter stock both the contractors and the squatter owners shared the rent that was created with this transformation process. As discussed in the previous chapters of this study, density increased and so did the land prices and infrastructure lacked behind as the

area is still in need of proper roads, green areas and playgrounds. This is concrete example to direct and indirect degradation of the environment with the improvement plans which succeeded in legalizing the area but fail to create a proper and parallel environment.

As to the positive aspect of these plans, through improvement plans legalization of the squatter house areas were legalized to a great extent. At present there are very few unauthorized neighborhoods in the city.

As mentioned in Chapter IV “Improvement Plan is an urban development condition drawn on updated land use maps, that determines building regulations with the aim of bringing balanced, regular and healthy conditions for unhealthy, uncontrolled built up areas or building blocks in clearly defined borders with the consideration of existing conditions”.

At the end of this thesis a definite result is reached that improvement plans, which aim to satisfy the housing need of low income groups, could not reach their aims. Improvement Plan is used as an investment tool by squatter owners and building contractors.

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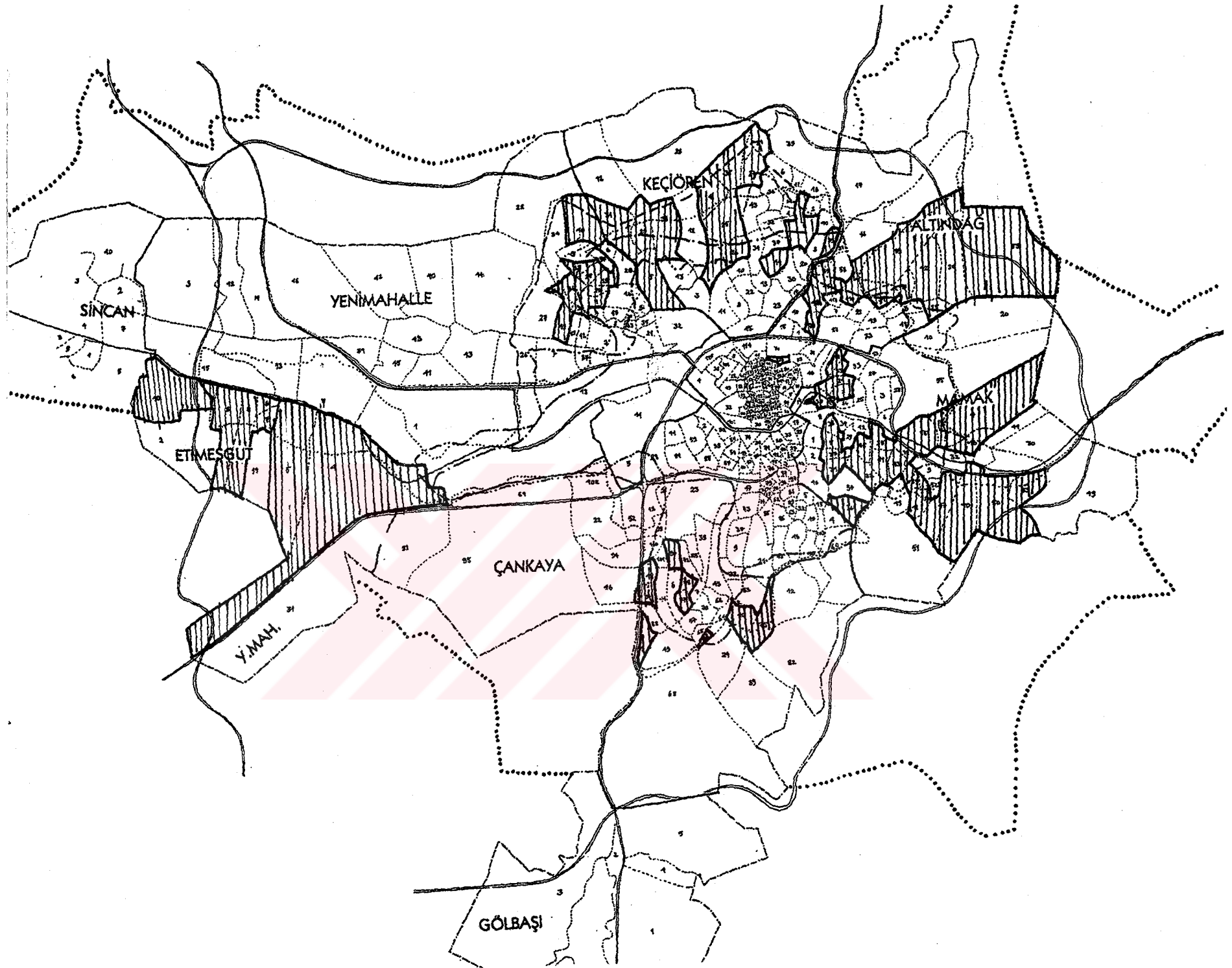
## APPENDIX A

### LIST OF ACTS RELATED TO SQUATTER SETTLEMENT PREVENTION AND IMPROVEMENT

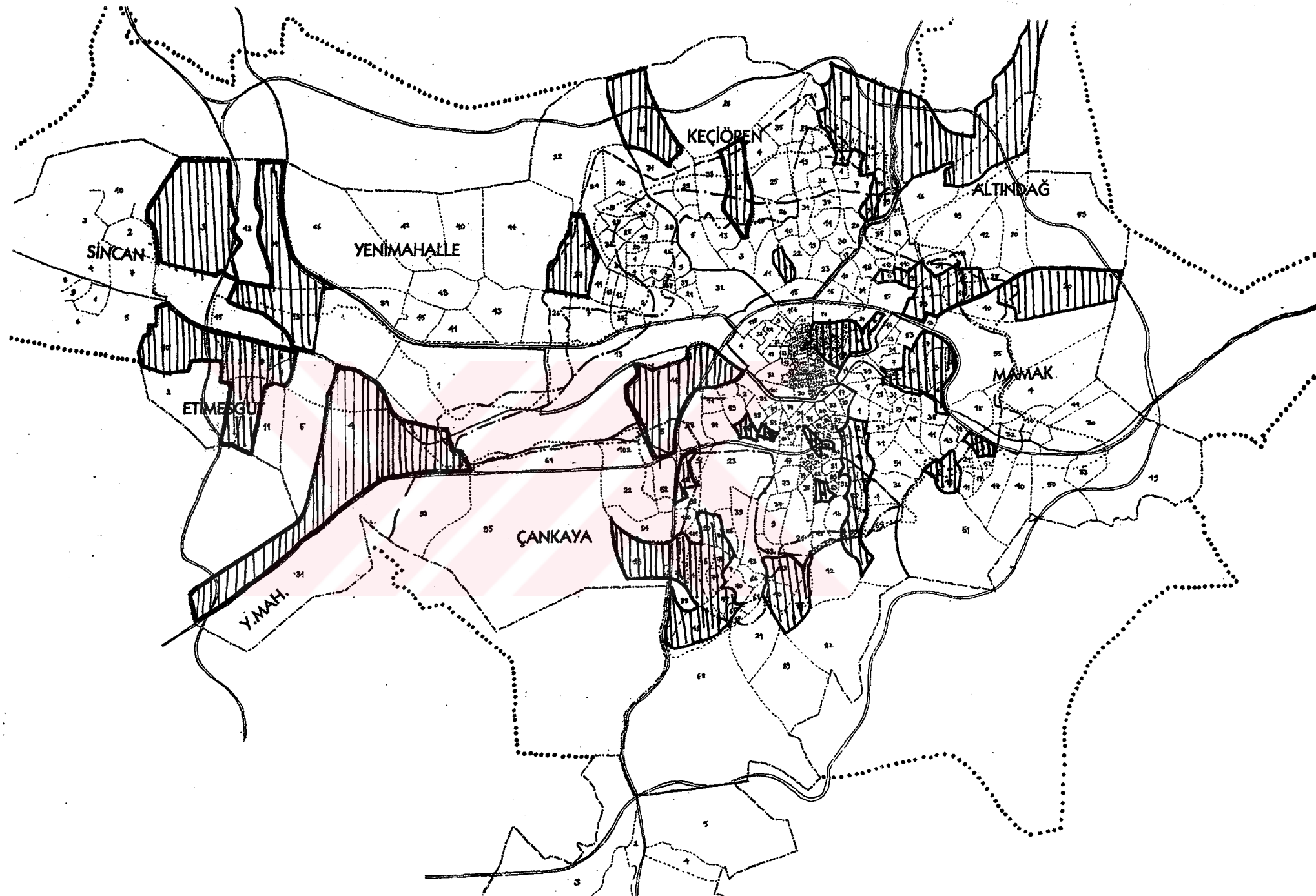
| <u>ACT NO</u> | <u>DATE OF APPROVAL</u> | <u>NAME OF ACT</u>  |
|---------------|-------------------------|---|
| 5218          | 14. 06. 1948            | Ankara Belediyesine Arsa ve Arazisinden Belli Bir Kısımını Mesken Yapacaklara 2490 Sayılı Kanun Hükümlerine Bağlı Olmaksızın ve Muayyen Şartlarla Tahsis ve Temlik Yetkisi Verilmesi Hakkında Kanun |
| 5228          | 28. 06. 1948            | Bina Yapımını Teşvik Kanunu   |
| 5431          | 06.06.1949              | Ruhsatsız Yapıların Yıkıtılmasına ve 2290 Sayılı Belediye Yapı ve Yollar Kanununun 13üncü Maddesinin Değiştirilmesine Dair Kanun  |
| 6188          | 24. 07. 1953            | Bina Yapımını Teşvik ve İzinsiz Yapılan Binalar Hakkında Kanun  |
| 6785          | 09. 07. 1956            | İmar Kanunu   |

|      |              |   |
|------|--------------|---|
| 775  | 20. 07. 1966 | Gecekondu Kanunu  |
| 1990 | 06. 05. 1976 | Gecekondu Kanununda Bazı Değ. Yapılması Hk. Kanun   |
| 2805 | 16. 03. 1983 | İmar ve Gecekondu Mevzuatına Aykırı Olarak Yapılan Yapılara Uygulanacak İşlemler ve 6785 Sayılı İmar Kanununun Bir Mad. Değ. Hk. Kanun  |
| 2981 | 24. 02. 1984 | İmar ve Gecekondu Mevzuatına Aykırı Olarak Yapılan Yapılara Uygulanacak İşlemler ve 6785 Sayılı İmar Ka. Bir Mad. Değiş. Hk. Kanun  |
| 3016 | 06. 06. 1984 | 20. 07. 1966 Tarihli ve 775 Sayılı Gecekondu Kanununun 26. Mad. Değiş. Dair Kanun   |
| 3194 | 03. 05. 1985 | İmar Kanunu   |
| 3290 | 22. 05. 1986 | 24. 02. 1984 Tarih ve 2981 Sayılı Kanunun Bazı Mad. Değiştirilmesi ve Bu Kanuna Bazı Maddeler Eklenmesi Hk. Kanun   |
| 3414 | 02. 03. 1988 | 775 Sayılı Gecekondu Kanununun Bazı Hük. Değ. Hk. 03. 05. 1985 Tarih ve 247 Sayılı K. H. K. ile Bu Kanun Hük. Kararnamenin İki Maddesinde Değ. Yap. Dair Tarih ve 250 Sayılı K. H. K. nin Değiş. Kabulü Hk. Kanun |

APPENDIX B



Squatter Neighborhoods with Improvement Plans in 1984 - 1989 Period



Squatter Neighborhoods with Improvement Plans in 1990 - 1996 Period

## APPENDIX C

### M<sup>2</sup> PROPOSED SOCIAL AND TECHNICAL INFRASTRUCTURE WITH IMPROVEMENT PLANS

Table 1. Proposed Social and Technical Infrastructure in Altındağ Municipality in 1984-1989 Period

| NEIGHBORHOOD                                  | Education (m <sup>2</sup> ) | Health (m <sup>2</sup> ) | Socio-Cult. (m <sup>2</sup> ) | Green Area(m <sup>2</sup> ) | Commercial (m <sup>2</sup> ) | Tech. Infrast (m <sup>2</sup> ) |
|---|-----------------------------|--------------------------|-------------------------------|-----------------------------|------------------------------|---------------------------------|
| Karapürçek                                    | 5000                        | 2000                     | 2500                          | 19500                       | 7000                         | 58500                           |
| F.Çelik<br>Başpınar<br>Beşikkaya<br>Doğantepe | 63000                       | 4200                     | 2560                          | 189957                      | 9800                         | 684000                          |
| Plevne  | 4200                        | -                        | -                             | 1350                        | 1060                         | 5630                            |
| Çamlık<br>Beşikkaya                           | 75063                       | 3870                     | 3400                          |                             | 11265                        | 1329674                         |
| Solfasol<br>Yıldıztepe<br>Güneşevler          | 35000                       | 1500                     | -                             | 285332                      | 4200                         | 357000                          |
| Güneşevler<br>Gülpınar<br>Doğu<br>Yıldıztepe  | 40389                       | 2610                     | -                             | 103293                      | 4840                         | 572800                          |
| Güneşevler<br>Ali Ersoy                       | -                           | -                        | -                             | 7827                        | 1600                         | 165941                          |
| Yeşilöz<br>Yeşilöz                            | 3250                        |                          |                               | 3060<br>9000                | 2840                         | 13400                           |
| Başpınar                                      | -                           | -                        | -                             | 19374                       | -                            | 10500                           |
| <b>TOTAL</b>                                  | <b>225902</b>               | <b>14180</b>             | <b>8460</b>                   | <b>636693</b>               | <b>42605</b>                 | <b>3197445</b>                  |

Table 2. Proposed Social and Technical Infrastructure in Altındağ Municipality in 1990-1996 Period

| NEIGHBORHOOD   | Education (m <sup>2</sup> ) | Health (m <sup>2</sup> ) | Socio-Cult. (m <sup>2</sup> ) | Green Area(m <sup>2</sup> ) | Commercial (m <sup>2</sup> ) | Tech. Infrast (m <sup>2</sup> ) |
|--|-----------------------------|--------------------------|-------------------------------|-----------------------------|------------------------------|---------------------------------|
| Önder<br>Hacılar<br>Ulubey   | 38265                       | 6208                     | 13848                         | 76306                       | 1908                         | 56031                           |
| Alemdağ<br>Battalgazi<br>Hacılar<br>Önder<br>Ulubey  | 104000                      | 7000                     | 10000                         | 114000                      | 12000                        | 482000                          |
| Baraj  | 11440                       | 1640                     | -                             | 56895                       | 5200                         | 78768                           |
| Gültepe<br>S Somuncuoğlu<br>Gökçeneffe<br>Doğanşehir<br>I. S. Murat<br>Çalışkanlar   | 51400                       | 8200                     | 6600                          | 459100                      | 9500                         | 178700                          |
| Aktaş<br>Atilla<br>Cemalbey<br>Çandarlı<br>Engürü<br>Fatih<br>Fermanlılar<br>Gültepe<br>Hayri Akmanlar<br>Hürriyet<br>Kartallar<br>K. Zeytinoğlu<br>Orhan Gazi<br>Özgürlük<br>Sinan Paşa<br>Sokullu<br>Yavuz Selim<br>Yiğitler | 19700                       | 4000                     | 2600                          | 62800                       | 1000                         | 299900                          |
| <b>TOTAL</b>   | <b>224805</b>               | <b>27048</b>             | <b>33048</b>                  | <b>769101</b>               | <b>29608</b>                 | <b>1095399</b>                  |

Table 3. Proposed Social and Technical Infrastructure in Çankaya Municipality in 1984-1989 Period

| NEIGHBORHOOD  | Education (m <sup>2</sup> ) | Health (m <sup>2</sup> ) | Socio-Cult. (m <sup>2</sup> ) | Green Area(m <sup>2</sup> ) | Commercial (m <sup>2</sup> ) | Tech. Infrast (m <sup>2</sup> ) |
|---|-----------------------------|--------------------------|-------------------------------|-----------------------------|------------------------------|---------------------------------|
| Karapınar   | -                           | -                        | -                             | 3700                        | -                            | -                               |
| Ata   | -                           | 1500                     | -                             | 9000                        | -                            | -                               |
| Akpınar I<br>Akpınar II                             | 11830                       | 1500                     | 2200                          | 3650                        | -                            | -                               |
| Öveçler   | 10826                       | 1200                     | -                             | 9000                        | 6600                         | -                               |
| Şehitler  | 6000                        | 1500                     | -                             | 28500                       | -                            | -                               |
| Cevizlidere   | 4500                        | -                        | 1800                          | 3000                        | -                            | -                               |
| Seyran  | 6000                        | -                        | -                             | 3000                        | -                            | -                               |
| Balgat  | 10000                       | -                        | -                             | 26091                       | 6500                         | 748                             |
| Çukurca I<br>Çukurca II<br>Çukurca III              | 47952                       | 26564                    | 22533                         | 110000                      | 5870                         | 6649                            |
| İmrahor I<br>(Zafertepe)                            | 1200                        | -                        | -                             | 17000                       | -                            | -                               |
| İmrahor II<br>(Bağcılar-<br>Boztepe)<br>İmrahor III | 12371                       | -                        | -                             | 32000                       | -                            | -                               |
| Sancak I<br>Sancak II<br>Sancak III                 | 20662                       | 3077                     | 2501                          | 120000                      | 7093                         | 109200                          |
| M Kemal I<br>M Kemal II<br>M Kemal III              | 2695                        | 1763                     | -                             | 35000                       | 4442                         | 1543                            |
| Huzur   | 11765                       | 1570                     | 3237                          | 48550                       | 4961                         | 1733                            |
| Yıldız-Hilal  | 10675                       | -                        | -                             | 14247                       | -                            | 88389                           |
| Gökkuşığı   | 7195                        | -                        | -                             | 800                         | -                            | -                               |
| <b>TOTAL</b>  | <b>163671</b>               | <b>38674</b>             | <b>32271</b>                  | <b>463538</b>               | <b>35466</b>                 | <b>208262</b>                   |

Table 4. Proposed Social and Technical Infrastructure in Çankaya Municipality in 1990 -1996 Period

| NEIGHBORHOOD   | Education (m <sup>2</sup> ) | Health (m <sup>2</sup> ) | Socio-Cult. (m <sup>2</sup> ) | Green Area(m <sup>2</sup> ) | Commercial (m <sup>2</sup> ) | Tech. Infrast (m <sup>2</sup> ) |
|--|-----------------------------|--------------------------|-------------------------------|-----------------------------|------------------------------|---------------------------------|
| Cevizlidere  | 72833                       | 5547                     | 5440                          | 70795                       | 14500                        | 849696                          |
| Gökkuşuğu  |                             |                          |                               | 72869                       |                              |                                 |
| Karapınar  |                             |                          |                               | 42527                       |                              |                                 |
| Akpınar  |                             |                          |                               | 153017                      |                              |                                 |
| Şehitler   | 18100                       | 1478                     | 1064                          | 90525                       | 3984                         | 93411                           |
| Ata  | 4050                        | 1470                     | 961                           | 53823                       | -                            | 86476                           |
| Öveçler  | 14690                       | 1500                     | 1040                          | 145731                      | -                            | 57364                           |
| Keklikpınarı II  | 25726                       | 4026                     | 3890                          | 62794                       | 1240                         | 130385                          |
| Keklikpınarı I   | 24395                       | 5780                     | 5060                          | 74072                       | 16000                        | 130385                          |
| Mürsel Uluç İlker  | 29616                       | 2900                     | 2560                          | 122184                      | 14925                        | 225703                          |
| Çiğdemtepe   | 5040                        | 4200                     | 3000                          | 11690                       | -                            | 13090                           |
| Karakusunlar   |                             |                          |                               |                             |                              |                                 |
| Kırıkkonaklar  | 49795                       | 5402                     | 5780                          | 32000                       | 6482                         | -                               |
| Yıldız Hilal   | 18500                       | 2974                     | 2327                          | 23400                       | -                            | 95367                           |
| Aşıkpaşa Boztepe Bağcılar Bademlidere  | 23700                       | -                        | -                             | 28000                       | 3000                         | -                               |
| Çiğdemtepe Çiğdemtepe  | 5106                        | 2100                     | 1500                          | 23450                       | -                            | 3875                            |
| Malazgirt  | 13284                       | 2811                     | 1368                          | 1529                        |                              |                                 |
| Karakusunlar I<br>Karakusunlar II<br>Karakusunlar III<br>Karakusunlar IV<br>Karakusunlar V | 80813                       | 11217                    | 22543                         | 502589                      | 11367                        | 2846                            |
| <b>TOTAL</b>   | <b>385648</b>               | <b>48594</b>             | <b>56533</b>                  | <b>1510995</b>              | <b>71498</b>                 | <b>1688598</b>                  |



Table 5. Proposed Social and Technical Infrastructure in Etimesgut Municipality in 1990 -1996 Period

| NEIGHBORHOOD | Education (m <sup>2</sup> ) | Health (m <sup>2</sup> ) | Socio-Cult. (m <sup>2</sup> ) | Green Area(m <sup>2</sup> ) | Commercial (m <sup>2</sup> ) | Tech. Infrast (m <sup>2</sup> ) |
|--------------|-----------------------------|--------------------------|-------------------------------|-----------------------------|------------------------------|---------------------------------|
| Etiler       | -                           | 1357                     | -                             | 40115                       | 2558                         | 45500                           |
| İstasyon     | 20404                       | 3539                     | -                             | 45439                       | 6700                         | 83500                           |
| K. Karabekir | -                           | 1775                     | -                             | 26500                       | 18800                        | -                               |
| Süvari       | 33294                       | 8720                     | 56389                         | 58066                       | 13739                        | 230000                          |
| 30 Ağustos   | 36700                       | 3265                     | 6151                          | 907597                      | 11291                        | 285300                          |
| Piyade       | 33774                       | 9874                     | 4587                          | 55000                       | 31571                        | 330000                          |
| Topçu        | 30109                       | 4400                     | 2455                          | 51500                       | 7000                         | 250935                          |
| Şeker        | 6849                        | 591                      | -                             | 17000                       | 4218                         | 49400                           |
| Eryaman      | 12068                       | 5232                     | 4566                          | 46741                       | 7933                         | 123700                          |
| <b>TOTAL</b> | <b>173198</b>               | <b>38753</b>             | <b>74148</b>                  | <b>1247948</b>              | <b>103942</b>                | <b>1467335</b>                  |

Table 6. Proposed Social and Technical Infrastructure in Keçiören Municipality in 1984 -1989 Period

| NEIGHBORHOOD      | Education (m <sup>2</sup> ) | Health (m <sup>2</sup> ) | Socio-Cult. (m <sup>2</sup> ) | Green Area(m <sup>2</sup> ) | Commercial (m <sup>2</sup> ) | Tech. Infrast (m <sup>2</sup> ) |
|-------------------|-----------------------------|--------------------------|-------------------------------|-----------------------------|------------------------------|---------------------------------|
| Bağlarbaşı        | 4900                        | -                        | -                             | 60440                       | -                            | -                               |
| Güçlükaya         | 14200                       | -                        | -                             | 36000                       | -                            | -                               |
| Hasköy            | 3000                        | -                        | -                             | 12877                       | -                            | -                               |
| Kanuni            | 6775                        | 2000                     | 3400                          | 25000                       | -                            | 10699                           |
| Kuşcağız          | 45895                       | -                        | -                             | 86150                       | 1100                         | 5983                            |
| Osmangazi I       | 7800                        | 4150                     | 1350                          | 45300                       | 11400                        | -                               |
| Osmangazi II      | 25250                       | 2250                     | -                             | 50240                       | -                            | -                               |
| Sancaktepe        | 36648                       | 5511                     | -                             | 107600                      | 17095                        | 5421                            |
| Ufuktepe          | 38981                       | 6056                     | -                             | 62652                       | 14985                        | -                               |
| Yayla             | 77385                       | 13600                    | 13600                         | 126314                      | 8200                         | 373085                          |
| Şehit Kubilay     | 2000                        | -                        | -                             | 14500                       | -                            | 7345                            |
| Şehit Kubilay ilv | -                           | -                        | -                             | 8965                        | -                            | -                               |
| Atapark I         | 16145                       | 6000                     | -                             | 57345                       | 7325                         | 100284                          |
| Atapark II        | 20644                       | 12053                    | -                             | 178815                      | -                            | -                               |
| Ayvalı I          | -                           | -                        | -                             | -                           | -                            | -                               |
| Ayvalı II         | -                           | -                        | -                             | -                           | -                            | -                               |
| Ayvalı III        | 34104                       | 6792                     | -                             | 48154                       | 1493                         | 251344                          |
| Ayvalı IV         | -                           | -                        | -                             | -                           | -                            | -                               |
| Ayvalı V          | -                           | -                        | -                             | -                           | -                            | -                               |

Table 5. (Cont.)

|                     |               |              |              |               |              |                |
|---------------------|---------------|--------------|--------------|---------------|--------------|----------------|
| 19 Mayıs<br>İncirli | 15790         | -            | -            | 45950         | 1418         | -              |
| <b>TOTAL</b>        | <b>349517</b> | <b>58412</b> | <b>18350</b> | <b>966302</b> | <b>63016</b> | <b>1244860</b> |

Table 7. Proposed Social and Technical Infrastructure in Keçiören Municipality in 1990 -1996 Period

| NEIGHBORHOOD                     | Education (m <sup>2</sup> ) | Health (m <sup>2</sup> ) | Socio-Cult. (m <sup>2</sup> ) | Green Area(m <sup>2</sup> ) | Commercial (m <sup>2</sup> ) | Tech. Infrast (m <sup>2</sup> ) |
|----------------------------------|-----------------------------|--------------------------|-------------------------------|-----------------------------|------------------------------|---------------------------------|
| Basınevler                       | 1050                        | -                        | -                             | 6450                        | -                            | -                               |
| Çubuk I                          | 20400                       | 2013                     | 14726                         | 84760                       | 5725                         | 4550                            |
| Çubuk II                         |                             |                          |                               | 23950                       | 6289                         | 5586                            |
| Esertepe                         | 6638                        | -                        | -                             | 30000                       | 7786                         | 6877                            |
| Kurtini                          | 8725                        | -                        | -                             | 9420                        | -                            | 7567                            |
| 23 Nisan<br>Köşk                 | 2750                        | -                        | -                             | 9750                        | 5250                         | -                               |
| Papazderesi                      | 11020                       | 1690                     | 2500                          | 54200                       | 5470                         | 4200                            |
| Sermeevler                       | 1872                        | 1423                     | 1900                          | 13050                       | -                            | 1457                            |
| Uyanış                           |                             |                          |                               | 6200                        |                              |                                 |
| Uyanış II                        | 6750                        | 4800                     | -                             | 2200                        | 8000                         | 41240                           |
| Uyanış III                       | 4400                        |                          |                               | 750                         |                              | 27135                           |
| Yeşilöz<br>Yeşiltepe<br>Çaldıran | 41800                       | 7500                     | -                             | 52800                       | 11200                        | 242356                          |
| Yüksetepe<br>Taşlıtepe           | 59685                       | 16400                    | 21371                         | 87725                       | 14900                        | 2235                            |
| Bademlik I                       |                             |                          |                               | 1480                        |                              |                                 |
| Bademlik II                      | 35995                       | 3107                     | 4425                          | 15289                       | -                            | 20648                           |
| Bademlik II ilave                |                             |                          |                               | 18422                       |                              |                                 |
| Aktepe II                        |                             |                          |                               | 56755                       |                              |                                 |
| Aktepe III                       |                             |                          |                               | 10000                       |                              |                                 |
| Aktepe IV                        | 36674                       | 9700                     | 1800                          | 6515                        | 6500                         | 173024                          |
| Aktepe V                         |                             |                          |                               | 1050                        |                              |                                 |
| Kardeşler                        | 4600                        | 1347                     | -                             | 13170                       | -                            | 39000                           |
| Selçuklu                         | -                           | 1690                     | 9100                          | -                           | 8150                         | 153980                          |
| Şenyuva<br>Güzelyurt             | 59040                       | 10944                    | -                             | 192366                      | -                            | 222078                          |
| Kasalar                          | 6000                        | -                        | -                             | 45404                       | -                            | -                               |
| <b>TOTAL</b>                     | <b>307399</b>               | <b>58924</b>             | <b>173722</b>                 | <b>791049</b>               | <b>79270</b>                 | <b>797953</b>                   |

Table 8. Proposed Social and Technical Infrastructure in Mamak Municipality in 1984-1989 Period

| NEIGHBORHOOD  | Education (m <sup>2</sup> ) | Health (m <sup>2</sup> ) | Socio-Cult. (m <sup>2</sup> ) | Green Area(m <sup>2</sup> ) | Commercial (m <sup>2</sup> ) | Tech. Infrast (m <sup>2</sup> ) |
|---|-----------------------------|--------------------------|-------------------------------|-----------------------------|------------------------------|---------------------------------|
| Aşık Veysel :<br>Peyami Sefa<br>Kazım Orbay<br>Gn. Z. Doğan<br>Mutlu  | 155300                      | 23250                    | 3500                          | 170000                      | 8000                         | -                               |
| Şafaktepe   | 2500                        | -                        | -                             | 9300                        | -                            | -                               |
| Nato Yolu<br>Mamak Koop.-<br>Samsun Dev.<br>Yolu Arası                | 34400                       | 9008                     | 14000                         | 134100                      | 199000                       | -                               |
| Gülveren<br>B. Üstü   | 21300                       | 2000                     | -                             | 6000                        | 25000                        | -                               |
| Üreğil<br>Yeşilbayır<br>S. Gürler<br>K. Kayaş<br>Bayındır<br>Kusunlar | 85800                       | -                        | 9000                          | 123000                      | 125200                       | -                               |
| Tuzluçayır<br>Çağlayan<br>Şahintepe<br>Misket                         | 67680                       | 14270                    | 6480                          | 67020                       | 11900                        | -                               |
| Derbent<br>Dostlar<br>Araplar   | 51120                       | 6500                     | 1700                          | 26200                       | 38900                        | 202500                          |
| D.Alıç<br>Dutluk<br>Cengizhan<br>F. Korutürk                          | 76000                       | -                        | -                             | 17620                       | 11200                        | -                               |
| Y. Musluk<br>Gülseren   | 42000                       | 5000                     | -                             | 6800                        | 48000                        | -                               |
| <b>TOTAL</b>  | <b>536100</b>               | <b>60028</b>             | <b>34680</b>                  | <b>560040</b>               | <b>467200</b>                | <b>202500</b>                   |

Table 9. Proposed Social and Technical Infrastructure in Mamak Municipality in 1990-1996 Period

| NEIGHBORHOOD                                      | Education (m <sup>2</sup> ) | Health (m <sup>2</sup> ) | Socio-Cult. (m <sup>2</sup> ) | Green Area(m <sup>2</sup> ) | Commercial (m <sup>2</sup> ) | Tech. Infrast (m <sup>2</sup> ) |
|---|-----------------------------|--------------------------|-------------------------------|-----------------------------|------------------------------|---------------------------------|
| Y. Kartaltepe<br>Kartaltepe<br>Harman<br>Hürel    | 44350                       | 9960                     | 2990                          | 28800                       | 27900                        | -                               |
| Ege<br>Boğaziçi<br>Şirintepe                      | 55000                       | 19500                    | 5800                          | 37850                       | 4500                         | -                               |
| Ş.Cengiz Topel<br>Türközü<br>Akdere               | 147336                      | 3200                     | 1925                          | 27585                       | 40700                        | -                               |
| Derbent   | 8000                        | 2350                     | -                             | 1250                        | 5290                         | -                               |
| Hüseyingazi<br>Altrağaç<br>Bahçeleriçi<br>Karağaç | 88390                       | 4780                     | -                             | 33730                       | 32190                        | -                               |
| Ekin  | 55410                       | 8160                     | 4580                          | 49080                       | 58000                        | 3000                            |
| <b>TOTAL</b>                                      | <b>398486</b>               | <b>47950</b>             | <b>15295</b>                  | <b>178295</b>               | <b>168580</b>                | <b>3000</b>                     |

Table 10. Proposed Social and Technical Infrastructure in Yenimahalle Municipality in 1984-1989 Period

| NEIGHBORHOOD                        | Education (m <sup>2</sup> ) | Health (m <sup>2</sup> ) | Socio-Cult. (m <sup>2</sup> ) | Green Area(m <sup>2</sup> ) | Commercial (m <sup>2</sup> ) | Tech. Infrast (m <sup>2</sup> ) |
|-------------------------------------|-----------------------------|--------------------------|-------------------------------|-----------------------------|------------------------------|---------------------------------|
| Ç. Tepe I<br>Ç. Tepe I<br>Ç. Tepe I | 42780                       | 3420                     | 1295                          | 571351                      | 6000                         | -                               |
| G. Tepe I<br>G. Tepe II             | 7900                        | -                        | -                             |                             | -                            | -                               |
| Burç<br>Kayalar                     | 20160                       | 1120                     | 1970                          |                             | 13430                        | -                               |
| Kaletepe I<br>Kaletepe II           | 35427                       | 2670                     | -                             |                             | 12553                        | -                               |
| Demetevler                          | 59600                       | 17340                    | 3000                          |                             | 18000                        | -                               |
| G. Yaka I<br>G. Yaka II             | 5775                        | -                        | 1800                          |                             | 37904                        | 9770                            |
| Karşıyaka                           | 3080                        | 1040                     | -                             | 5271                        | 12127                        | -                               |

Table 10. (Cont)

|              |               |             |             |               |              |          |
|--------------|---------------|-------------|-------------|---------------|--------------|----------|
| Anadolu      | 5232          | -           | -           | 7827          | -            | -        |
| Pamuklar     | 37685         | 2880        | -           | 40689         | 27999        | -        |
| Avcılar      | 11336         | 980         | -           | 19968         | 2881         | -        |
| <b>TOTAL</b> | <b>228975</b> | <b>3860</b> | <b>8065</b> | <b>111659</b> | <b>96760</b> | <b>-</b> |

Table 11. Proposed Social and Technical Infrastructure in Yenimahalle Municipality in 1990-1996 Period

| <b>NEIGHBORHOOD</b> | <b>Education (m<sup>2</sup>)</b> | <b>Health (m<sup>2</sup>)</b> | <b>Socio-Cult. (m<sup>2</sup>)</b> | <b>Green Area(m<sup>2</sup>)</b> | <b>Commercial (m<sup>2</sup>)</b> | <b>Tech. Infrast (m<sup>2</sup>)</b> |
|---------------------|----------------------------------|-------------------------------|------------------------------------|----------------------------------|-----------------------------------|--------------------------------------|
| Beştepeler          | 4100                             | 1200                          | 27300                              | 7860                             | 950                               | 30565                                |
| Beştepeler          |                                  |                               |                                    | 9300                             |                                   |                                      |
| <b>TOTAL</b>        | <b>4100</b>                      | <b>1200</b>                   | <b>27300</b>                       | <b>17160</b>                     | <b>950</b>                        | <b>30565</b>                         |

## APPENDIX D

### PHOTOGRAPHS OF THE CASES



General Review From The 4<sup>th</sup> Street



Case 1



Case 2



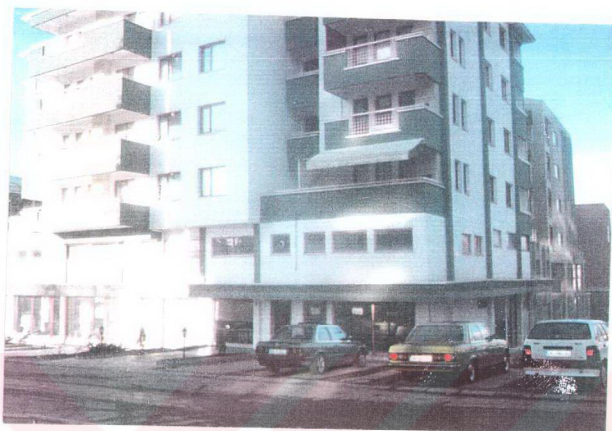


Case 3



Case 4





Case 5



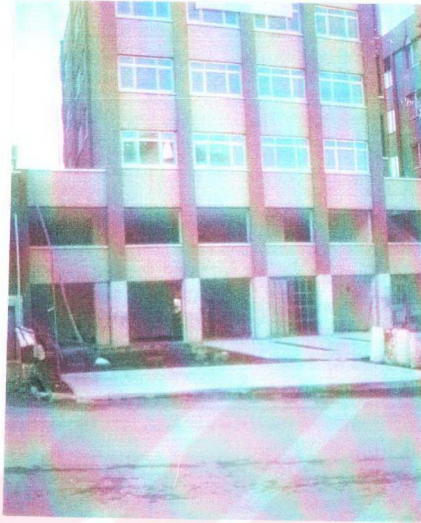
Case 6



Case 7



Case 8



Case 9



Case 10

## APPENDIX E

### QUESTIONS ASKED TO THE TRANSFORMATION PROCESS' ACTORS IN THE INTERVIEWS

#### 1. Squatter Phase

##### 1.1. Confiscated Process

- when
- how much
- under which conditions
- were there any partner
- were there any squatter

##### 1.2. If there was a squatter on the plot

- the base of the squatter (m<sup>2</sup>)
- number of storeys
- number of residential units
- who were residences
- were there playground in the plot

#### 2. Characteristics of Plots

- size of the plot (m<sup>2</sup>)
- location of the plot
- neighborhoods
- slope of the plot
- were there any infrastructural problem

#### 3. Construction Phase

- when
- how much
- under which conditions
- are there any partner
- years of construction process

- were temporary or relative workers employed
- were there any problem with municipality or neighborhoods

#### 4. Characteristics of the new apartment houses

- m<sup>2</sup>, number of storey, number of residential units
- are there car parks
- are there playgrounds
- are there doorkeeping units
- entrance characteristics

#### 5. Personal Characteristics

##### 5.1. Birth Place

- squatter owner
- new owners
- building contractor

##### 5.2. Birth Years

- squatter owner
- new owners
- building contractor

##### 5.3. Education

- squatter owner
- new owners
- building contractor

##### 5.4. Occupations

- squatter owner
- new owners
- building contractor