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THE EFFECTS OF RAPID URBANIZATION IN A TURKISH CITY, IZMIR-KARSIYAKA

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ABSTRACT

One of the most significant of all post-war demographic phenomena and one that promises to loom even larger in the future is the rapid growth of cities: in particular developing countries. It is calculated that urban populations will nearly double by 2030 to 5.1 billion. Until the end of 1960s, rural-urban migration was viewed favourably in the economic development literature. Internal migration was thought to be a natural process in which surplus labour was gradually withdrawn from the rural sector to provide needed manpower for urban industrial growth. However migration today must be seen as a major contributing factor to the ubiquitous phenomenon of urban surplus labour and a force, which continues to exacerbate already serious urban unemployment problems.

Another problem, which the influx of migrants has brought to urban areas, is the development of squatter communities. The squatting problem may be viewed as part of the larger problem of inadequate urban housing.

The urbanization process in cities of developing country (and Turkey is no exception) seems constantly to be outrunning the ability of the urban system to provide adequate numbers of jobs, housing, basic services such as running water and sanitation conditions, for new arrivals seeking employment. However, the poor living and working conditions in rural areas certainly are the principal motivating factor for moving to urban centres.

In Turkey where the population growth rates were very steady until 1950s, the first large scaled migration moves started between 1950-1960 and major cities like Istanbul, Ankara, Izmir and other industrial and trade based cities received the largest portion of immigrations in the country. As a result of development policies, on the calendar of 2000s the unbalanced increases of the population ratios caused pressure on cities like Izmir, which are providing employment for the sectors not only in agriculture but also for the sectors apart from agriculture.

In brief, special attention given in accordance with inflow of population to the cities, often over-burden the capacity of urban governments to provide employment, basic services, housing and sanitation living conditions for citizens.

1. INTRODUCTION

Our coastal zones are of strategic importance not only to Turks but also to people who live in Mediterranean settlements and in all European countries. Environmental problems discussed in this case study are related to population movement towards cities, which caused environmental pollution specially on soil and water. Cities like Izmir-Karsiyaka located on the Mediterranean coast are facing serious problems of habitat destruction, water contamination, coastal erosion and resource depletion and air-sea pollution with an uncontrolled flow of immigrants. Karsiyaka-Izmir like other cities, especially in Mediterranean low income countries, also suffer from serious socio-economic and cultural problems. These problems have to be looked as inter-related with biological, physical and human activities.

For these reasons, it is absolutely clear that the EU Member States and candidate countries (no exception Turkey) have the highest responsibility for coastal zone management within the EU environmental policies. This paper briefly discusses how rapidly urbanization effects urban settlement with the concern of environmental issues. Especially Karsiyaka settlement environmental changing with the result of rapid urbanization is taken into consideration.

2. URBANIZATION APPROACH IN GENERAL

One of the most significant of all post-war demographic phenomena and one that promises to loom even larger in the future is the rapid growth of cities: in particular in developing countries. It is projected that urban populations will nearly double by 2030 to 5.1 billion. Until the end of 1960s, rural-urban migration was thought to be a natural process in which surplus labour was gradually withdrawn from the rural sector to provide needed manpower for urban industrial growth. However migration today must be seen as major contributing factor to the ubiquitous phenomenon of urban surplus labour and a force, which continues to exacerbate already serious urban unemployment problems, and exaggerate the environment problems within city living.

Another problem, which the influx of migrants has brought to urban areas, is the development of squatter communities. The squatting problem may be viewed as part of the larger problem of inadequate urban housing. (Tatlidil, 1990, pp. 11-12)

The urbanization process in developing countries' cities (and Turkey is no exception) seems constantly to be outrunning the ability of the urban system to provide adequate numbers of jobs, housing, basic services such as running water and sanitation conditions, for new arrivals seeking employment. However, the poor living and working conditions in rural areas are certainly principal motivating factors for moving to urban centres. (Tatlidil, 1989, p. 5)

In Turkey where the population growth rates were steady until 1950s, the first large scaled migration moves started between 1950-1960s and major cities like Istanbul, Ankara, Izmir and other industrial and trade based cities received the largest portion of immigrants in the country. As a result of development policies, on the calendar of 2000s the unbalanced increases on the population ratios caused the pressure on cities like Izmir, which are providing employment for the sectors not only in agriculture but also for the sectors apart from agriculture.

In brief, special attention given in accordance with inflow of population to the cities, often over burden the capacity of urban governments to provide employment, basic services, housing and sanitation living conditions for the citizens.

3. THE MAIN ENVIRONMENTAL PROBLEMS IN THE MEDITERRANEAN AND TURKEY

The Mediterranean area, which has the most varied and rich cultural patrimony in the world, is characterised by a very delicate environment. The people and economic activities of twenty states on three continents are linked together by the Mediterranean sea. The social scenario around the sea is really variegated: people living north of the Mediterranean are, on an average, twelve times wealthier than their neighbours living in the south. The total GDP of the Mediterranean countries non-EU members is about 6% of that of the 15 EU members.

Pollution in the Mediterranean sea is due not only the result of the activities of its bordering countries but also to the numerous rivers emptying into it all kinds of pollutants coming from the non-Mediterranean countries they flow through. It has been estimated that about 85% of the Mediterranean sea pollutants are of terrestrial origin.

Pollution of this fragile ecosystem, causing destruction of natural habitats, has of course disastrous effects on the quality of life of hundreds of millions of people and the possibility of improvement of the social and economic conditions of the most disadvantaged countries. In the affected areas pollution has in fact negative impacts on opportunities for economic development such as expansion of tourism, agriculture and fishing.

Turkey as a Mediterranean country has a "Mediterranean climate", characterised by hot, dry summers, and mild and wetter winters, with run off from infrequent but often massive rain fall causing soil erosion. However, Mediterranean regions of Europe have witnessed rapid changes over the past thirty years, in particular in the last decade, affecting all aspects of society. For a number of countries, accession to the European Union has led to major socio-economic changes. These upheavals have disrupted the special relationship between man and environment in these areas with highly specific climate. At the same time, the landscape itself has undergone rapid change. As a result, Southern Europe is facing a process desertification, which is evident in the cultivated land, pasture grounds and forests, and in the substantial loss of biological diversity. Paulo Mairota, John Thornes and Nichola Greeson pointed out that

vast rural areas are temporarily and permanently abandoned, urban sprawl is rampant, agriculture is intensifying and water shortage, accentuated by the droughts of the 1980s and 1990s has become the main problem in the terms of resources and environment (World Resources Institute 2000).

In this sense Turkey is a Mediterranean country not excluded from these typically Mediterranean climatic conditions. For this reason, it is badly influenced in agricultural production and biological diversity, as witnessed in the Agriculture Report of Turkish State. Population growth in certain settlements stresses the ecosystem because it contributes to increase both consumption and conversion. For this reason not only Turkey but all other Mediterranean countries are involved.

Turkey is a functioning market economy and should be able to cope with competitive pressure and market forces within the Union. However as regards alignment with the environment acquis, several laws and orders have been adopted, but the emphasis lay on preparatory work. Although more attention has been paid to the allocation of sufficient budgetary and administrative resources to the environmental sector to ensure the implementation of the acquis, given the size of the alignment task in this area, this sector still remains a high priority.

According to 2000 Regular Report from the Commission on Turkey's Progress Towards Accession, Turkish environment legislation is still very different from that of the Community in particular in terms of standards, monitoring requirements and methods of measurement. It is understood from the report that completing adoption of the environmental acquis remains a long-term prospect; the implementation of the laws leaves much to be desired. It is also important to carry out detailed compliance checks of these laws in order to ensure full transportation of EC environmental directives.

EC environmental directives specially concern the fields listed below:

- air quality legislation still needs to be harmonized with the acquis.
- waste management is one of the most problematic areas in particular as regards implementation of related legislation. A large percentage of household waste (93%) is uncontrolled waste, being illegally dumped. Substantial efforts need to be undertaken to comply with community standards.
- the quality of water needs to be introduced in a new legal framework law. Turkey's water legislation does not seem to be compatible with the Community acquis. It does mean that Turkish drinking water standards and wastewater discharging in line have to be brought to the acquis.
- in order to preserve rich assets in biodiversity, nature protection needs to be paid particular attention in the pre-accession process.
- finally the industrial pollution control and risk management area, in line with the acquis, still needs to be introduced (CEC, 2000, pp. 60-61).

4. POPULATION AND URBANIZATION

After World War II, population movements of developing countries were also seen in Turkey, which is behind the challenges of developing. Immigrations between regions and from rural areas to urban areas moved towards the big cities of the regions, which are well developed and capable of producing employment. In Turkey where the population growth rates were very steady until 1950s, the first large scale immigration moves started between 1950-1960s and the major cities like Istanbul, Ankara, Izmir and other industry and trade based cities received the largest proportion of immigration in the country. As a result of development policies, on the calendar of 2000s the unbalanced increases in population ratios caused pressure on cities like Izmir, which are providing employment for the sectors not only in agriculture but also for other sectors.

The immigrant population, which is at least three times greater than the acceptable population growths of cities has caused negative effects on the natural developments of the cities. The country-based immigrants, who have little education, are inexperienced in work except agriculture working in the field of temporary work, which is not organized, not well paid and not in social securities. The workers who were able to work only in the fields which are just daily and called "marginal jobs", have suffered from having to face the living costs of a city life and this has caused the tissue of the city to be damaged. To survive in the city they started to build their houses on pieces of land, which are not identified as parcels and mostly owned by state and individuals. Then illegal "gecekondus" areas, which surrounded cities in very short period of time, became the major accommodation of the urban population. According to statistical data more than 1/3 of the population in Istanbul, Ankara, Izmir lives in "gecekondus" areas. (Tatlidil, 1991, p. 4)

While the local authorities are struggling with providing urban services like housing, education and health are certainly insufficient to provide facilities for the newcomers. National and local authorities are unable to establish an "immigration policy" which is to be put into practice harmoniously, they are even less capable of producing projects for urban areas and green area development. Accordingly, failure to distinguish and facilitate the areas, which are suitable for housing results in pressure on urban tissue and natural green areas. The most important factor in the preparation and implication of the projects related with the natural evolution and future structures of cities is the implication of the policies diverting population movements. In this phase of the project, characteristics of the structure of the population concerned in the habitat centre of Karsiyaka District are to be discussed to help improvement of urban habitat project. (Erdem, 2001, p. 10)

5. URBAN POPULATION CHARACTERISTICS OF IZMIR AND KARSİYAKA

Changes on economic and social structure of Turkey after 1950s altered the movements from rural areas to urban cities especially to city centres. Recently, during the acceleration of urbanization, it has been observed that Turkey has no urbanization and immigration policies at all.

The educational mobilization starting with the republic had caused some changes in the life styles and expectancies of people by educating rural population to higher levels in favour of rural life. Teachers trained at "village country teacher training schools" and "village institutes" didn't only educate school children but took part in education of rural adults as well as taking an active role in their social, economic and cultural developments which, accordingly, ended the philosophy of fatalism. Aiming to improve life standards they tried to mobilize the spirit of enterprise in rural areas by facilitating the agricultural management with modern equipment instead of traditional techniques of cultivation, which gave speed to social improvement. The social and economic pressure of World War II also effected Turkey as well as other countries and caused people to change their philosophy of life. The economic policies favouring rural life caused a great amount of unemployment among traditional agricultural workers due to the inputs of Marshall aid like tractors and other cultivating technologies. Apart from unemployment emerging due to technology transfers in agriculture sector, it was also triggered by the high birth rates of rural areas. The unemployed population of agricultural workers started to move to cities where employees were needed to find jobs in other fields.

As shown in Table A1 the population growth in urban areas after 1950s is much higher than in rural areas. After 1965 the immigrating population moving to three major cities Istanbul, Ankara and Izmir had also affected neighbour industrializing or potentially developing city centres populated over 100.000. According to the 1950 census when the total urban population of Turkey was 25% it increased up to 63% in the 1997 census. At the same period the rural population decreased to 37% from 75%.

The rapid and growing population growth rate of urban areas put them under severe economic, social and cultural pressure.

As is seen in Table A1. and in Figure 1. like other immigration receiving provinces, major district centre of Izmir increased its urban population by receiving newcomers. The city-centre of Izmir increased its urban population by receiving immigrants both from other regions and from its own rural areas and accordingly caused a decrease in rural population. Especially the central districts like Karsiyaka which had facilitating conditions for settlement and housing, spread their urban habitat areas to an extent, which included neighbouring rural settlements. In 1950 Karsiyaka accommodated half of its population in rural areas after receiving so much immigration. It was inevitable to open the city-centre to housing and to consider the surrounding village areas as urban areas. By the year 2000 the rural population had already been melted into the urban population. The agricultural areas in rural parts of the country will have completely disappeared in 50 years' time. In 1950 the population of Karsiyaka was 15.453, 7.636 of this population was in urban areas whereas 7.817 was in rural areas, according to the 1997 census results. The urban population of Karsiyaka has increased 56 times and reached up to 426.679 while the rural population is 359 persons. Nowadays local authorities are not able to consider any part of the population of Karsiyaka as rural population.

6. THE EFFECTS OF POPULATION ON HOUSING IN URBAN AREAS OF KARSİYAKA

When analyzing the data of research relating to urbanization and immigration, it is observed that the ones who joined the immigrations from rural areas to city centres had shown similar characteristics with

the demographic characteristics of Karsiyaka. It is understood that the immigrated population is young, active workers that are men and women in fecund age group. The 36.4% of the existing population of Turkey are under the age of 15. Being unable to produce employment in rural areas, which have high fecundity rates forced people to move to cities having capacity of employing with hopes of finding a job. Izmir with a high potential of producing employment has become an immigration-receiving city in great numbers together with Istanbul and Ankara. Because of the high potential of Izmir to produce employment the number of annually received immigrants is still considerably high. The annual received immigration of Izmir is estimated as 80.000 by State Institute of Statistics (SIS, 2001).

Between the years 1950-1960 when Izmir started to receive intensive immigration, because of being unable to produce enough housing, the city inevitably couldn't control illegal housing as well as "gecekonduşma" (A Turkish expression for houses erected in one night on a private owned or a state land without any permission or project). As known "gecekondu" is a typical Turkish housing type in urbanization terminology. Similar settlements in developing countries like "Favelas", "Barrios", "Slums", "Shanty Towns", "Squatter Areas" and "Gecekondus" haven't yet real urban settlement conditions. Intensively populated and illegally housed and gecekondu quarters such as Postacılar, Örnekköy and Alpaslan lack in sufficient health facilities and infrastructure.

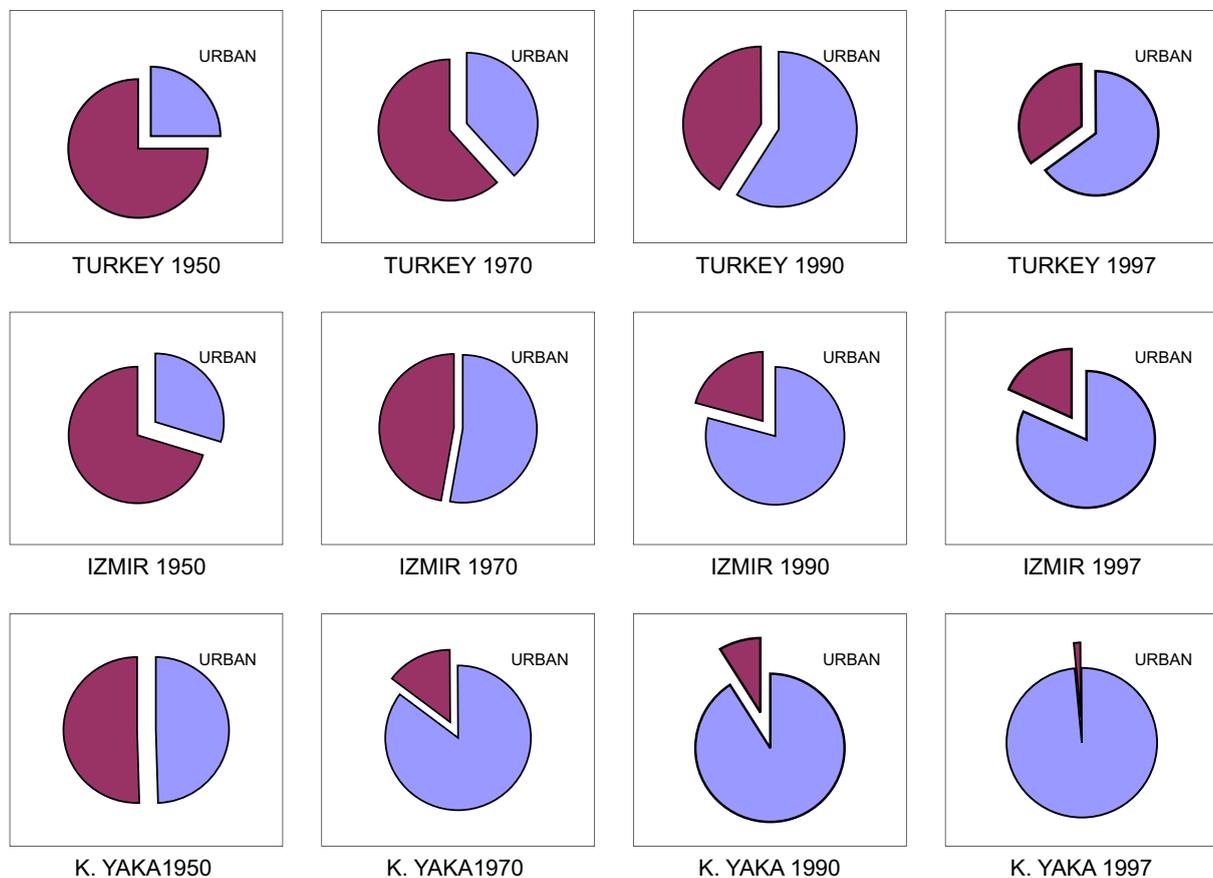


Figure 1. Urban Population Growth Rate in Comparison with Turkey, the Izmir Province, and the Karsiyaka District by Census Results, 1950-1997 (SIS, 2001)

According to Act No. 755 which legislates urbanization and building regulations "gecekondu" is defined as "The illegal buildings built on land which doesn't belong to the builder without obeying the legislation related to housing and urbanization and without any permission from the owner of the land". Act No. 6188 dealing with supporting housing and sanctions against illegal housing defines gecekondu as; "the housing on a land which doesn't belong to the builder contrasting with the urbanization project which is confirmed by the legal owner, mostly unhealthy, without any proper technique and quickly erected. (Tatlidil, 1989, p. 15) Here the two different characteristics of "gecekondu" can be seen. The first is that they contrast with the legislation, which means they are illegal. It emphasizes that these buildings

are erected very in a short time without obeying any health and proper structure technique. The second is that these buildings are on land owned by someone else and no permission is taken from these legal owners. And it is considered an invitation by force. Both show that economic insufficiency of an individual or a family forces them to break the rules to own a "gecekondu". Not only the technical inefficiencies of the building but their having no public utilities toll (roads, sewage, lighting, top water, transportation, insufficient landscape planning etc.) show that the majority of the population who live in gecekondu are from lower economic groups and are mostly newcomers.

As shown in Figure 2, as a result of immigration from rural areas to urban areas in Turkey rapid urban population increases are observed. The rate of the population growth of Turkey is half speed of Turkey's average urban population. As an inevitable fact the urban population growth of Karsiyaka is much higher than Izmir city as well as of the whole country. As a result of this dramatically population explosion in Karsiyaka, the surrounding agricultural lands and the green tissue of Karsiyaka, carrying only 7.636 inhabitants in 1950, became 64.194, increasing 8.4 times while Izmir increased 2.4 times and the average urban population of Turkey in general increased 1.7 times.

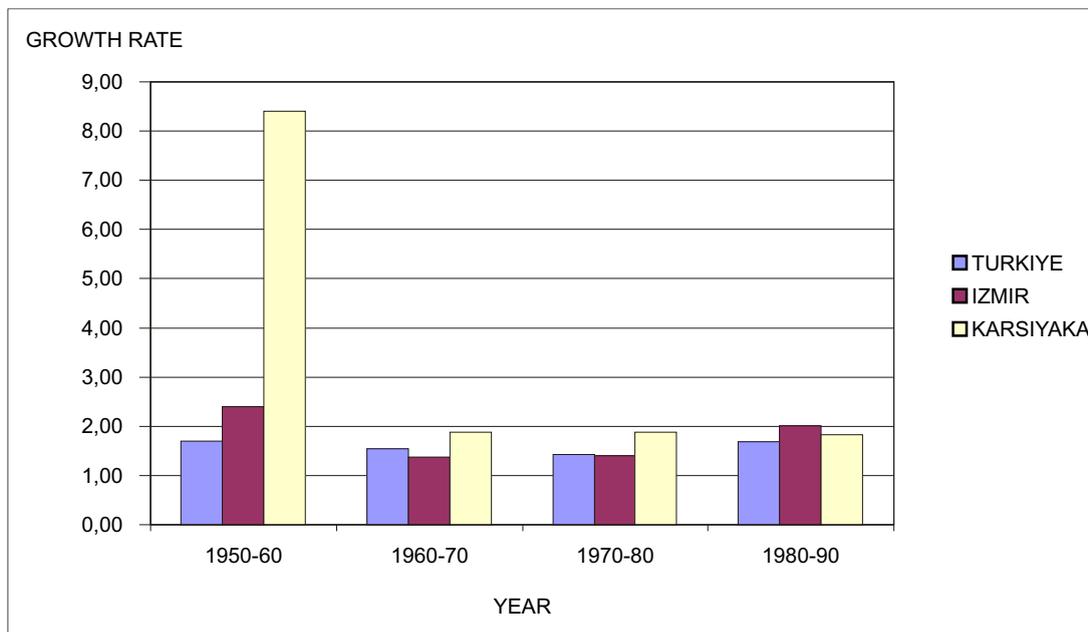


Figure 2. Graphics Comparing the Urban Population Growth Rates in Turkey-Izmir-Karsiyaka District in Decades by Census Results. (Sources: SIS)

Karsiyaka considered as the housing and habitat area of Izmir city population has attracted the working population in Izmir and other major district centres to settle. As seen in Tables 2, 3 and 4, as a result of these characteristics and backgrounds Karsiyaka was considered major central district until 1980s and later on it became the most populated district followed by Konak, where the economic and cultural activities of the Ege Region are concentrated. While Karsiyaka was multiplying its population due to immigration, it became the suburb of Izmir in which the working and retired population preferred to settle. As a result of multistoried apartment blocks taking the place of houses with large gardens the city didn't grow horizontally but vertically instead. As is shown in Table A 3 population intensity of 803 persons per ha in 1960 increased up to 1.982 persons per ha by 1990. The inability to produce enough housing and land resulted in invasion of forests and agricultural lands and "gecekondus" on those lands by newcomers.

Karsiyaka with a population of 500.000 in its 39 quarters, accommodates middle and higher income groups of Izmir whereas the "gecekondus" population is the lower income group classes of Karsiyaka (See map 1).

When Karsiyaka's speed of population growth in the last two decades is examined, it shows parallelism with Izmir's population growth in general. The most important reason of the diminishing population growth rate is the decrease in the amount of lands and some precautions taken by local

authorities, such as more reasonable city plans and regulations in urban settlement areas. Urban population growth rates according to census results taken every 5 years

between 1980-1985 years ‰ 47.88,
 between 1985-1990 years ‰ 37.30,
 between 1990-1997 years ‰ 29.71

The decrease in population growth rates in between 1990 and 1997 is related to some administrative changes of some of the quarters of Karsiyaka belonging administratively to newly established Çiğli District.

The areas occupied and population density of the quarters in the urban area of Karsiyaka are shown in Table A3 and in Figure 3.

Table 1. Urban and Rural Population of the Karsiyaka District in years 1960-1997, (Census of population, SIS, 2001)

KARSIYAKA	1960	1965	1970	1975	1980	1985	1990	1997
URBAN	64.194	82.574	120.794	171.600	227.790	342.944	418.724	426.679
RURAL	13.683	13.770	20.934	32.097	44.833	5.569	5.472	359
TOTAL	77.877	96.344	141.728	203.697	272.623	348.513	424.196	427.038

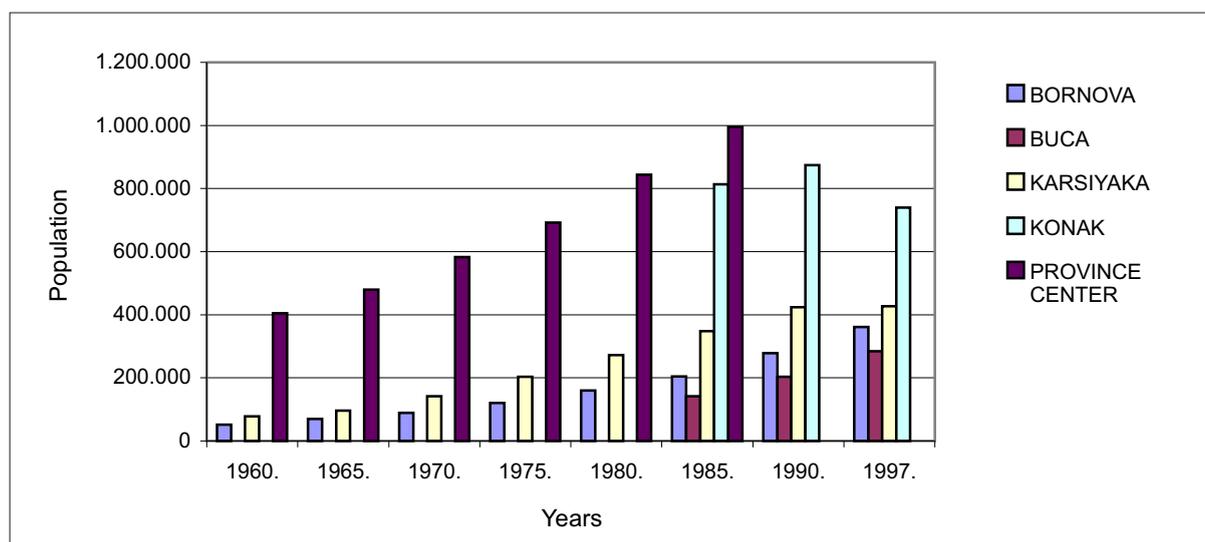


Figure 3. Total Population of Main Districts in the Province of Izmir in years

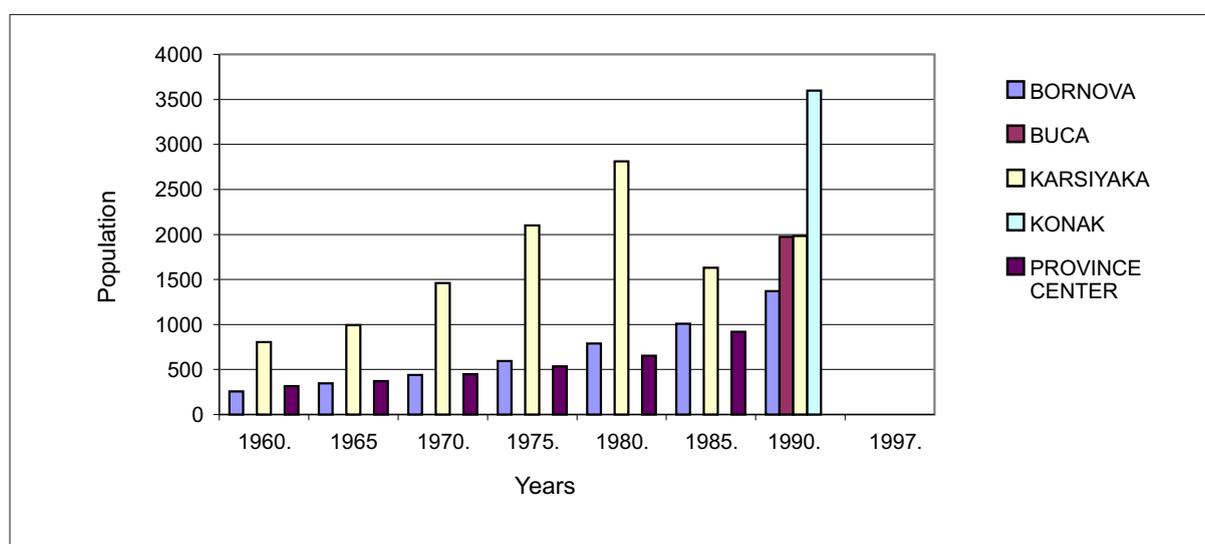


Figure 4. Population Densities of Main Districts in the Province of Izmir in years

7. HOW RAPID POPULATION GROWTH AFFECTED KARSİYAKA

Rapid population growth and imbalances in the distribution of population in relation to natural resources increase environmental degradation and undermine sustainable development. This is particularly evident in the case of the following problems:

- Agricultural lands around the city have been lost by demographic pressures among the poorest groups; population migration into the city, all cultivated areas and forests, around the city have become "gecekondus" settlements. At the same time all villages have participated in the city and have become city district (Map 1).
- High level of urbanization rise out of poverty around the city, and the nature of environmental problems changed: particularly,, a low level of economic development was associated with inadequate basic services and land degradation (Map 2).
- Changing land use, agricultural practices increased industrial and urban pollution.
- Uncontrolled level of urban population growths especially created pollution in coastal areas. As known, these ecosystems are under threat from, for example, construction and pollution, from domestic and industrial sources.

In brief, in Karsiyaka rapid population growth leads to environmental degradation through settlements in ecosystems, increased demand of natural resources and pollution. Patterns of migration and the resulting population density show an increasing trend towards urbanization, along with greater environmental problems.

8. CONCLUSION

Rapid urbanization and human activity within the Karsiyaka urban system produces many destructive and irresistible effects on natural environments such as climate change, air and sea pollution, sediment and soil erosion, increased flooding magnitude, and loss of habitat. With more and more people living and moving to Karsiyaka the problem will extend beyond existing boundaries and result in more damage to the natural environment. The effects of urbanization on the environment are permanent and extensive. Urban policy must be changed in order to save what is left of the natural life. As is known, natural land must be paved and turned into cities. This requires that flora and fauna either lose their homes or are relocated. Urbanization is virtually irreversible, but human beings as part of natural life must be living in this (o their) natural environment.

In 1987, the European Union presented a formal legal basis to its legislation on environmental protection with the European Single Act (Article 130 r), which set out three objectives:

- Protection of the environment
- Human Health
- Prudent and rational use of natural resources.

In 1998 the European Commission, that in 1971 had launched an Environmental Protection Program (EPP), created Ispra (Italy), an Environment Institute that embodied the EPP's activities and was given the mission of carrying out research in support of EU policies for the protection of the environment and citizens.

It is understood that all the countries in the Mediterranean area have to share the European strategy for ICZM. (Importance of the coastal zone management) whose strategy aims to promote a collaborative approach to planning management of the coastal zone within a philosophy of governance in partnership with civil society. The strategy defines the E.U.'s role as one providing leadership and guidance to support implementation of ICZM by the member states at local regional and national levels.

It is absolutely clear that the European programme for environmental protection is necessary for Turkey as a candidate country, to evaluate the "sustainability" of its various policies. Public, and in particular young people, awareness, , of the need of protection of the ecosystem of Turkey and the Mediterranean, should be adequately enhanced with environmental campaigns promoted by authorities, civil society and environmental NGO's.

In fact civil participation in the decision-making process concerning the environment is essential to prevent environmental damages, and to search for solutions to eliminate or reduce the impact when they have already occurred.

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Table A1. Urban and Total Population Changes Between 1950-1997 for Turkey, Province of Izmir, and District of Karsiyaka (Census of population in years; State Institute of Statistics 2001)

		1950	1955	1960	1965	1970	1975	1980	1985	1990	1997
TURKEY	URB.	5244337	6927343	8859731	10805817	13691101	16896068	19645007	26865757	33326351	40630435
	TOT.	20947188	24064763	27753820	31391421	35605176	40347719	44736957	50664458	56473035	62865574
PROV. OF IZMIR	URB.	227578	441017	548327	621553	753041	905059	1059183	1800797	2134816	2544363
	TOT.	768411	910196	1063490	1234667	1427173	1673966	1976163	2317829	2694770	3114859
DISTRICT OF KARS.	URB.	7636	40471	64194	82574	120794	171600	227790	200603	418724	426679
	TOT.	15453	53372	77877	96344	141728	203697	272632	204669	424196	427038

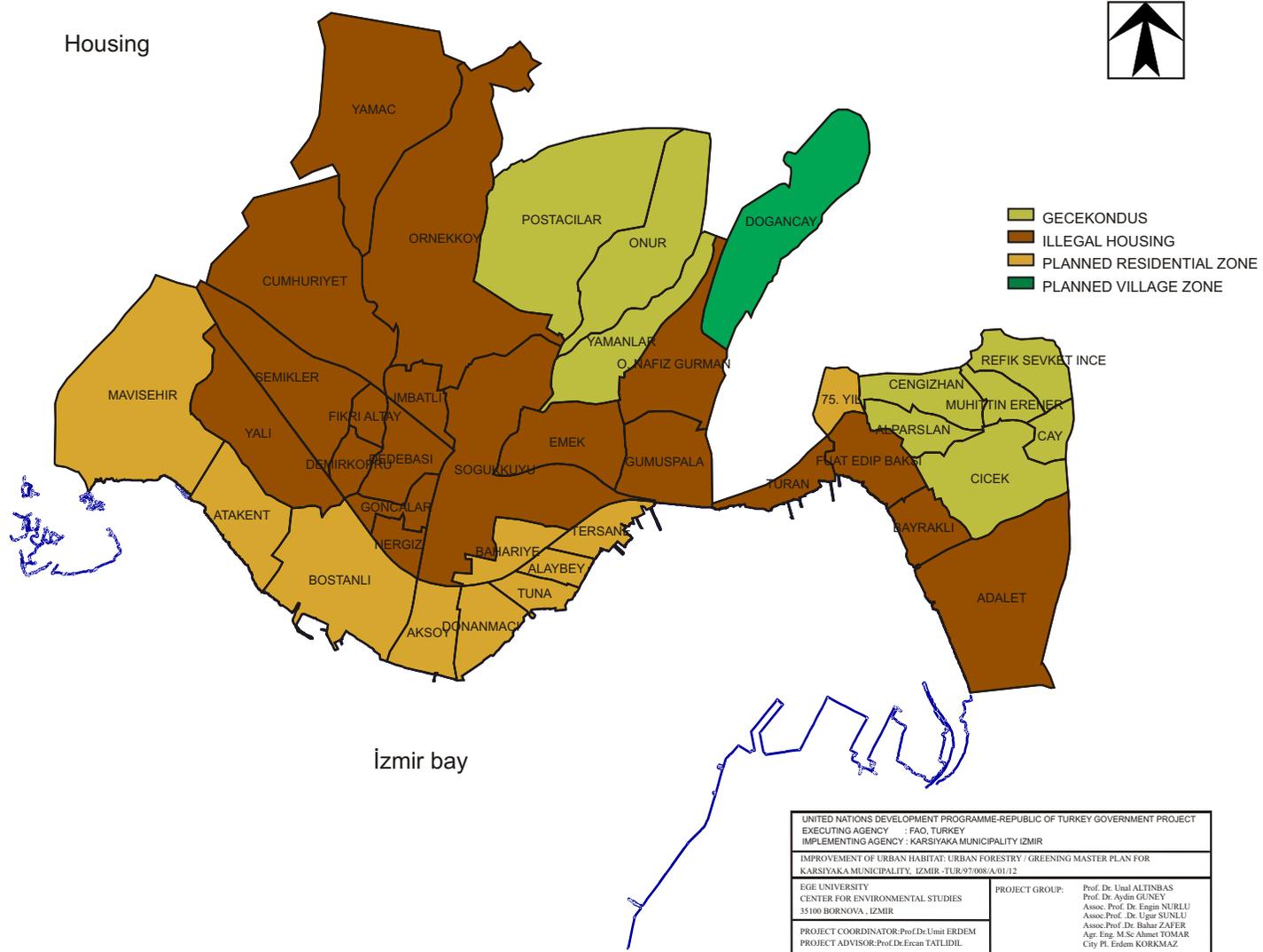
Table A 2. Total Population of Main Districts in the Province of Izmir in years 1960-1997 (Census of population, SIS 2001)

DISTRICTS	1960	1965	1970	1975	1980	1985	1990	1997
BORNOVA	52019	70261	89321	120487	160113	204669	278300	360927
BUCA	-	-	-	-	-	141192	203383	284771
KARSIYAKA	77877	96344	141728	203697	272623	348513	424196	427038
KONAK	-	-	-	-	-	813638	874597	739947
PROVINCE CENTER	405129	479495	582550	692365	843525	995745	-	-

Table A 3. Population Densities of Main Districts in the Province of Izmir in years 1960-1997, (Census of population, SIS 2001)

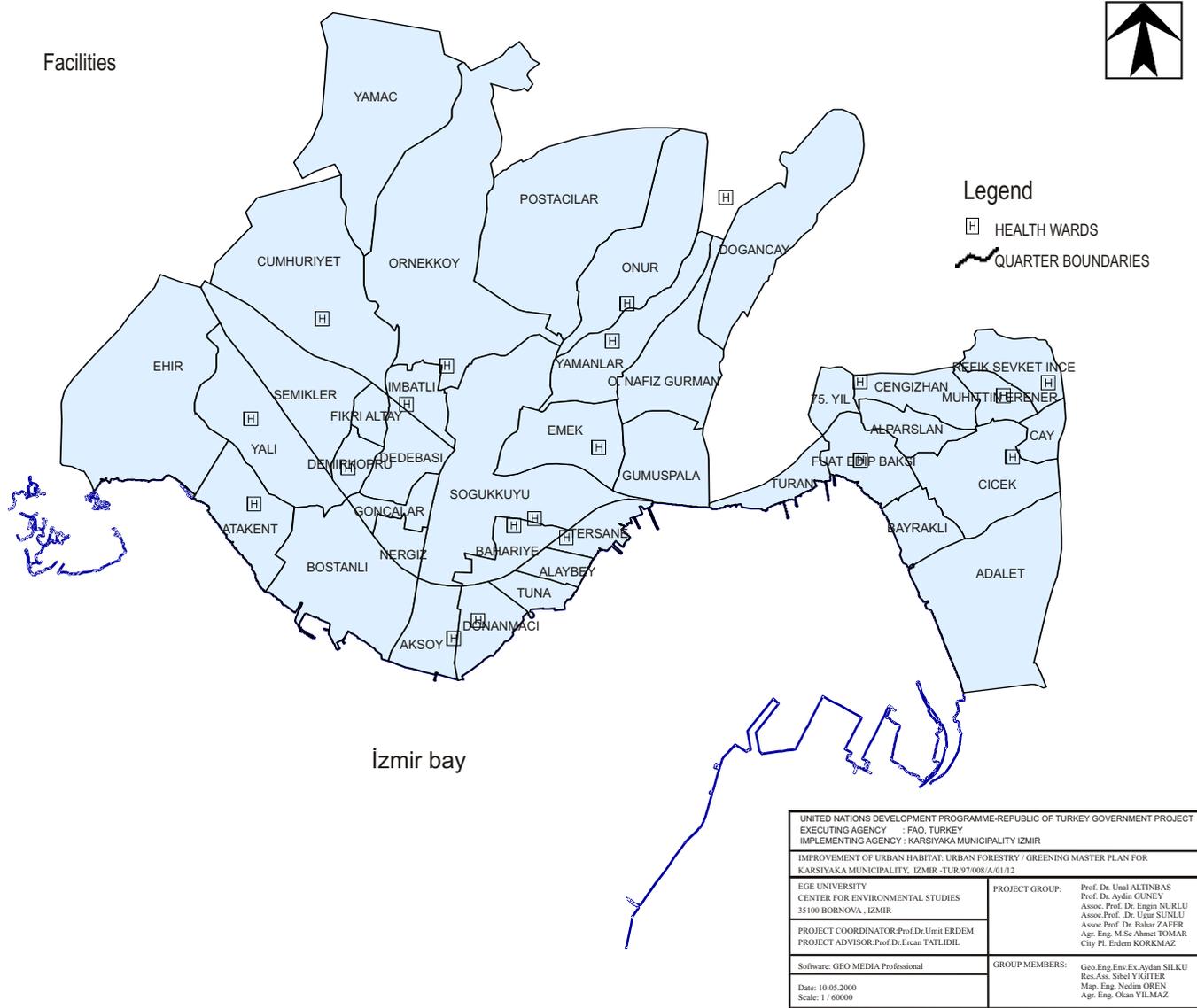
DISTRICTS	1960	1965	1970	1975	1980	1985	1990	1997
BORNOVA	256	346	440	594	789	1008	1371	
BUCA	-	-	-	-	-	-	1975	
KARSIYAKA	803	993	1461	2100	2811	1629	1982	
KONAK	-	-	-	-	-	-	3599	
PROVINCE CENTER	314	370	450	535	652	919	-	

IMPROVEMENT OF URBAN HABITAT: URBAN FORESTRY/GREENING MASTER PLAN FOR KARSIYAKA MUNICIPALITY IZMIR
 PREPARATION OF MASTER PLAN AND STRATEGY



Map A1 (Erdem and Tatlidil, 2001)

IMPROVEMENT OF URBAN HABITAT: URBAN FORESTRY/GREENING MASTER PLAN FOR KARSIYAKA MUNICIPALITY IZMIR
 PREPARATION OF MASTER PLAN AND STRATEGY



Map A2 (Erdem and Tatlidil, 2001)