# Peri-urbanization analysis in the metropolitan context: The case of Istanbul metropolitan area

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### Abstract:

The phenomenon of periphery-urbanization has been experienced with 'Istanbul Metropolitan Periphery' too. In this paper, as an example of developing country's metropolitan, the change and the transformation in Istanbul metropolitan periphery, is put forward with using a standard methodology including 'demographic, administrative, economic and spatial analysis'. Analysis results show that there has been a dynamic unbalanced urbanizing process in Istanbul Metropolitan periphery. In conclusion part; it is accepted that the urbanizing of metropolitan periphery is a dynamic process in which expansion phases of different sectors of activities are interconnected and likely to overlap in time and space.

Keywords: Peri-urbanization, metropolitan context, Istanbul

#### Introduction

In the second half of the 20<sup>th</sup> century, urbanization heralded not only changes of the socioeconomic, demographic, economic and physical structure of the cores of cities, but also of their periphery settlements. This paper will explore Istanbul as an example of a large metropolitan in a developing country, using demographic, administrative, economic and spatial analysis.

# Metropolitan Development and Periphery-urbanization in developing countries

Some of the largest, most vibrant and dynamic cities in the world are located in developing countries. What these societies seem to have in common is a pattern of uneven development that is even more extreme than that found in developed older nations. But this uneven development occurs most markedly in the limited number of cities in the developing world. As a result, many Third World countries today possess a single, gigantic city that is overurbanized or excessively populated and which remains the center for most investment and economic growth, while retaining a relatively underurbanized interior with no large cities. Primate cities are a

underurbanized interior with no large cities. Primate cities are a characteristic of an unbalanced pattern of urbanization that remains quite different from that found in the developed countries of the world (Gottdiner, 1994). Developing countries can suffer from extreme examples of uneven development despite impressive modernization efforts, and primate cities are often the sociospatial consequence (Bradshaw and Fraser, 1989).

Since World War II, urban scholars, planners and development practitioners have been intrigued by the rapid growth of settlements on the metropolitan periphery in developing countries. On one hand, these settlements have been viewed as "zones of spatial contact between town and country" "metropolitan villages" "stagnant peasant shantytowns" on the other hand they have been seen as dynamic incubators of new economic activity in both urban and rural sectors (Mortimore, 1975). However broadly the peripheral areas are characterized, it is clear that many global differences are perceived in their composition and functions. From either perspective, periphery urbanization has raised new challenges for the urbanization theory and development policy.

The somewhat dated literature on peri-urbanization in the developing world, undertaken initially by French researchers, arguably furnishes the most robust and thematically unified conception of periphery development, that is, the "peri-urbanization phenomenon." (Browder et al, 1995). At least four key themes resonate through this international literature.

**Demographic Trends** 

The first theme is the demographic process of periphery. While over the last years urbanization rates in the advanced industrialized countries have stabilized, and in many countries declined, urban population growth in the low-income countries of the Third World has risen dramatically. Indeed, nearly all of the future growth in the world's urban population is taking place in the cities of developing countries. Most of this urban growth is occurring on the metropolitan periphery (Browder et al, 1995). Developing countries' cities suffer from a double population explosion — a high rate of natural increase and a high rate of immigration. In developed countries, balanced urbanization provides both businesses and people with a variety of locational choices and urban environment, but developing countries' primate cities lack such locational flexibility. As a result, primate cities are locked in a migratory cycle. By functioning like a magnet, they pull the mobile population to them at the expense of other locations (Gottdiener, 1994).

The changing nature of economic structure

The second theme is the "changing nature of economic structure." Some previous studies of the metropolitan periphery have stressed the importance of "informal" income generating activities and, in some cases, strong links to agriculture in the peripheral economy. The others portrayed peripheral communities located on the metropolitan periphery as transitional economic and social spaces, functionally articulated to both rural and urban economies. Thus they present unique opportunities for stimulating economic growth in both sectors. But recent research challenges many of these conceptions. According to recent findings, contrary to the popular conception of peripheral settlements as quasi-rural in orientation, most residents of the periphery are well integrated into the larger urban economy (Swindell;1988), and links with the rural sector and agricultural activities are virtually nonexistent (Browder et al, 1995).

It was recently observed that developing countries' cities are moving rapidly from the stage of developing economies to post-industrial relations, which is skipping many of the features of industrialization that inform the experience of developed nations. Large cities in the developing world, like their First World counterparts, are experiencing shifts to a service-oriented employment base due to their increasing role as a command and control center of capital investment. (Browder et al, 1995).

Shantytown development

The third theme is "shantytown development around the periphery." Shantytowns are robust economies in themselves -- including areas of real estate investment and are also large residential districts where the working class often lives. Marginality of shantytown inhabitants is largely a myth. The statuses of shantytowns vary from city to city and country to country. In many places they are simply illegal settlements that have been built on the outskirts of cities and are under the threat of their annihilation by state authorities. In other places however, shantytowns have acquired legitimate status through political activism, and they constitute working-class suburbs that have many services including electrical power, running water, and schools etc. Shantytowns also possess a robust social order. In recent years manufacturing has developed in many developing countries' cities, and shantytowns are often the sites for small and medium-sized factories. (Perlman, 1976)

### Social and Political Movements

The fourth theme is, "peri-urban social movements and politics." Another important topic is often the significance of political struggles within the city (Castells, 1983). Developing countries' urban movements are characterized by a gradual transition during the last decade from essentially comprising local movements with limited socio-political goals to being more conscious movements making much greater demands on the state and with social political effects no longer limited to the local arena (Datta, 1990). Urban social movements are important in developing countries. They take many forms, for example: establishing free squatter settlements, self-governing squatter settlements and independent administrative units, which are a powerful political force in peri-urban areas. (Castells, 1983)

Like other developing countries, Turkey is mired in the vicious cycle of overurbanization/underurbanization. Like other large cities in the developing world, Istanbul is marked by uneven development of the central core/peripheral zone and socio-demographic, economic and spatial transformations.

The Istanbul Metropolitan Area Surveyed

Istanbul is unique because it is at the crossroads of Europe and the Middle East, a peculiarity that is reflected in its history, geographical features and blend of different cultures. Istanbul is a strategic center of utmost importance for Turkey's integration and interaction with the rest of the world, particularly Europe. The attributes that lend the city this significance are its functions, location, capacity and existing structure – all of which will allow it to develop on an international scale. It is for these reasons, and within this context, that Istanbul and its fringe must be studied. Istanbul is on an inextricable road to integration with the rest of the world, and in particular with regional economies, and is doing well to adapt to fast-moving global changes.

Because of its geographical location, Istanbul has been the coordination and control point of merchandise and transport dating back thousands of years. Traces of human settlement in Istanbul go back to 2000 BC. When one considers as a whole all of the cultures that have inhabited Istanbul and its environs, a unique mélange of cultural heritage comes to light.

However, for all of its natural and historical beauty Istanbul has been suffering under the same strains as other world metropolises. As a consequence of the development that was spurred from urbanization and migration, a primitive disorder and chaos exists. The country's rapid development and population growth has lead to industrialization and urbanization that is noticeable in Istanbul. Such factors effect life in the city and reflect on the urban space and scale. Istanbul still receives a higher rate of immigration than any other city in the country; hence it is the city with the largest growth in population (4.4 % annually).

Modern day Istanbul lies on a development belt that is approximately 300 kilometers wide, whose East-West continuity is held together with attached cities/towns beyond the metropolis. This development belt had a population of 12,000,000 in 1997 (SSI, 1997). Urban sprawl in Istanbul has been facing serious spatial problems in terms of meeting the needs of the population and the functions that the city contains. This fact also creates planning problems. Among these problems are increasing difficulties in conserving Istanbul's natural, cultural and inhabited landscapes. Istanbul has always been the prima in the country however, the deficits in planning activities and procedure create tremendous shortcomings .

Istanbul in our day is a metropolis searching for its future, and its future promises to be bright globally and regionally in economic terms. This seed of hope is nestled in the fertile knowledge of the city's 3,000-year-old history, its unique cultural quilt of different civilizations, and its strategic and geographical importance. In order to approach the problems of Istanbul, its characteristics should be understood well. Most importantly, Istanbul should be viewed as a metropolitan city defined by its geographical, strategic and economic aspects. Therefore, policies that engender new definitions and interpretations should be determined, targets and strategies put forward.

## Methodology

In this part of the paper, as an example of a developing country's metropolitan, the characteristics of its periphery are presented with demographic, economic, administrative and spatial analyses. Data used in the research is taken from reports by the State Statistical Institution (SSI) prepared between 1950 and 1997.

### Peri-urbanization Analysis in Istanbul Metropolitan Area

#### **Demographic Analysis**

To establish the scale of spillover and transformation around the Istanbul Metropolitan Area, a brief overview of demographic trends is necessary. Istanbul is Turkey's largest city by far, both in terms of population and area. According to the 1997 census, the population (9,198,809) of Istanbul covered about 14% of the total area of Turkey. This figure was up from 1950, when the city covered 5.6% of land area (Table 1). In 1950, agricultural conditions and industrialization led to migration from the rural to the urban areas. Population movements have been active, especially in Istanbul, and appear to be on the rise.

Table 1: Turkey and Istanbul Population Statistics (SIS, 1950-97)

Years	TURKEY	ISTANBUL	ISTANBUL/TURKEY.(%)
1950	20.947.188	1.166.477	5.57
1955	24.064.763	1.533.822	6.37
1960	27.754.820	1.882.092	6.78
1965	31.391.421	2.293.823	7.31
1970	35.605.176	3.019.032	8.48
1975	40.347.279	3.904.588	9.68
1980	44.736.957	4.741.890	10.6
1985	50.664.458	5.842.985	11.53
1990	56.473.035	7.309.190	12.94
1997	62.865.574	9.198.809	14.63

Urban and Rural Population Trends in Istanbul Metropolitan Areas

The rural population ratio was 4.6% in the 1970s and fell to 2.3% in 1997. As for development after 1970, Istanbul far exceeds nation-wide rates. Urban development up to the 1980s was above world averages for urban growth, a trend that hastened after 1980. When rural growth indexes are evaluated in Istanbul, it is well above the average until the 1980s. After the 1980s, Istanbul rural population growth fell below the world averages (Figure 1,2,3,).

Table 2: Share of Istanbul from Urban and Rural Population of Turkey (SIS 1950-97)

Years	Urban%	Rural%
1970	16.1	4.6
1975	15.7	5.3
1980	14.8	7.3
1985	20.7	1.2
1990	20.3	2.4
1997	20.8	2.3

**Table 3:** Total , Rural and Urban Population Development Index of Turkey and Istanbul (SIS.1950-97)

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	1970	1975	1980	1985	1990
Istanbul Urban	100	120	132	252	306
Turkey Urban	100	123	143	195	242
	1970	1975	1980	1985	1990
Istanbul Rural	100	154	224	34	67
Turkey Rural	100	107	114	108	106
	1970	1975	1980	1985	1990
Istanbul Total	100	129	157	193	242
Turkey Total	100	113	125	142	158

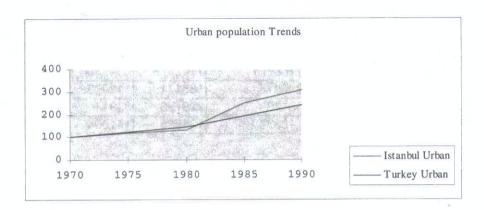


Figure 1: Turkey and Istanbul Urban Population Development Index (GSI)

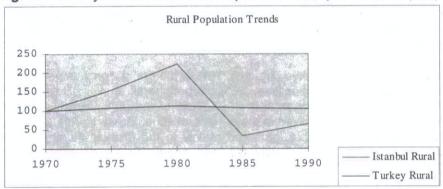


Figure 2: Turkey and Istanbul Rural Population Development Index (GSI)

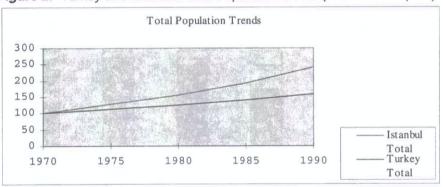


Figure 3: Turkey and Istanbul Total Population Development Index (GSI)

# Distribution of the Population in Central and Peripheral Zone of Istanbul

In determining the city's population trends, it is necessary to analyze population movements in the city's center and periphery. In the analysis of evaluations which is done every 10 years, between 1955 and 1997 the spread of the population and the dimension of core-periphery developments are determined (Table 4). Also determined is the "core zone," the districts that have been identified as central municipalities by the SSI since 1950, the districts located in Istanbul but outside the central municipalities, villages and their dependants of central districts as central rural and peripheral rural.

**Table 4:** The Distribution of the Population of Core-Periphery Region in the Istanbul Metropolitan Area.(SSI)

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Zone	1955	1965	1975	1985	1990
Core municipality	1268771	1742978	2547364	4918318	5112862
Periphery municipality	28601	186171	1120033	678447	1899904
Core rural	88113	229776	95914	69578	63787
Periphery rural	148337	134898	141004	176442	232637

In 1955, 82% of the total population lived in the core districts. In the same year, the portion of the population that lived in the peripheral municipalities was 2% and the rural population rate was 16% (Figure 4). Ten percent of this rate covered the rural part of the peripheral districts. In 1985 the political balances in the city affected the distribution of the population in the area, and in 1981 when the surrounding towns were gathered in core districts, 84% of the population lived in core districts while 11% lived in peripheral districts. In 1985, the proportion living in rural areas dropped to 5%.

In 1950, with administrative changes, 70% of the population was gathered in the central core municipalities, 26% in peripheral municipalities, 4% in villages and their dependants. In 1997, 70% of the population lived in the central zone while 30% lived in the peripheral zone. These figures show that the population of Istanbul, gathered mainly in the districts situated in the metropolitan core, continuously fell, and population trends can be seen shifting toward the metropolitan periphery. Figure 4 shows that rural population was decreasing every day, while the populations of peripheral municipalities were growing.

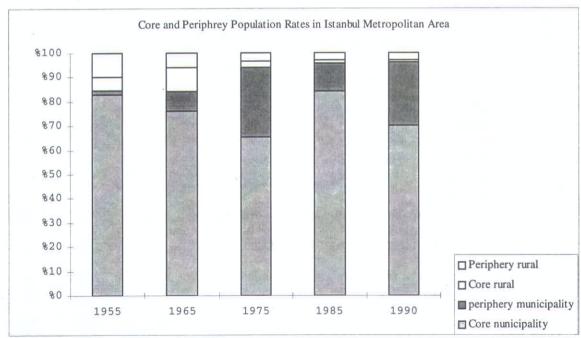


Figure 4: The Distribution of the Population in Core and Peripheral Zone in Istanbul Metropolitan Area.

### Distribution of the density in central and peripheral zones of Istanbul

The population growth of Istanbul has always been over the average for Turkey. In 1950, the population density was 216 persons per square kilometer, or eight times as high as the average of Turkey (27 persons/km²), while the gap was to multiply 18 times, with 1,280 persons per km<sup>2</sup> (Table 5). In Table 6, the Istanbul Metropolitan Area central-periphery, East-West side distribution and the rate of increase in population density are given. In 1950, there is a concentration of the city's population on the Western side (951 person/km²). The Western side peripheral municipalities are less populated (31 person/km²). The population density of the Eastern side is higher than that of the Western side (45 person/km²). In 1997, the Western side core districts had most of the population (6425 person/km²); but the Western side peripheral districts are less populated than those on the Eastern side (322 person/km²). The Eastern side core population density was 2,589 person/km² and peripheral density was 1,366 person/km². In 1997, the population share in the peripheral zone of the Eastern side was higher than that of the Western side. When this is evaluated, it becomes clear that population density in 1960 was concentrated in the city's core; for the first time, in 1980, the Western peripheral zone density exceeded the core density rate and in 1990 this gap reached its pinnacle. On the Eastern side, peripheral density is higher than that of the core zone.

Table 5: The Density in Turkey and Istanbul Metropolitan Area. (person/km²)

	1950	1960	1970	1980	1990
Türkiye	27	36	46	58	73
İstanbul	216	395	528	830	1280

Table 6: Distribution of Population Density in ralating to East and West (SSI)

	1955	1997
West Core	951	6425
West Periphery	31	322
East Core	312	2589
East Periphery	45	1366

### The distribution of settlements in relation to population group

In Table 7, the distribution of population groups in the Istanbul Metropolitan is shown. In 1955, while the rural settlement rate is 23 % on the Western side and 56% on the Eastern side. In 1965, the number of rural settlements in the Istanbul Metropolitan Periphery fell to 260, and there was no major change in the distribution rate of settlement figures for the East and West. When population distribution is examined in relation to population groupings, there was no change on the Western side ratings, but on the Eastern side 0-400 population group settlements' rate fell to 47%, and the 401-1000 population group settlements' rate rose to 40%. In 1975, the number of rural settlements in the metropolitan periphery fell to 255, and the balance between the Western and Eastern rural settlement numbers changed in favor of the Eastern side.

In 1990, the number of rural settlements on the metropolitan periphery fell to 230, and there was a slight increase in favor of the Eastern side. In 1985, the most active part on the Western side occurs in population groups of 2001-5000, at a rate of 20%. Again, the 0-400 population group rural

settlement figure keeps falling (13%). In 1985, there is movement on the Eastern side, with the 0-400 population group rural settlements' rate falling to 43%, while 2001-5000, 5001-10000, 10000+ population group rural settlements' rates rose.

**Table 7:** The Distribution of Settlements in Istanbul Metropolitan Periphery in Relation to Population Size (SSI).

Population Size Group	1955	%	1965	%	1975	%	1985	%	1990	%	1997	%
Western Side												
0-400	33	23	35	25	22	17	17	14	14	13	14	12
401-1000	66	49	61	48	60	50	49	44	34	31	32	27
1001-2000	27	20	26	19	31	26	34	31	36	35	28	24
2001-5000	7	5	7	5	7	5	11	10	19	19	23	20
5001-10000	1	1	2	1	1	1	1	1	1	1	8	7
10000+	2	2	3	2	1	1					11	10
Total	136	100	134	100	122	100	112	100	104	100	116	100
Eastern Side												
0-400	72	56	59	47	67	50	67	53	55	41	48	48
401-1000	42	31	52	40	39	30	30	25	43	34	29	30
1001-2000	12	9	12	9	19	14	17	14	14	12	5	5
2001-5000	2	2	2	2	5	4	7	6	8	7	8	8
5001-10000	2	2	1	2	3	2	2	2	3	3	2	2
10000+			-				1		3	3	5	5
Toplam	130	100	126	100	133	100	121	100	126	100	97	100
GENERAL TOTAL	266		260		255		233		230		213	

The strange distribution in 1997 is shown in table 7; while the Western side 0-400 population group settlement rate fell to 12%, and the 5000-10000 and 10.000+ population group settlement rates rose. On the Eastern side, the most important difference compared to the Western side is the frequency of the 0-400-population group settlements rate. On the Eastern side, 48% of the settlement was in the 0-400-population group size. Again on the Eastern side, the 10.000+ population group settlement number rate increased.

### The distribution of settlements in location to water basin area

According to the population analysis, the population tended to expand outwardly. With this trend, the rate of the rise in population of the Western and Eastern sides was different, with 86% of the people living in "municipalities."

In the Metropolitan City Periphery, to know the number of settlements in the water basin area is of vital importance for the Istanbul Metropolitan Area. In 1997, the number of settlements located in the water basin area and the number of settlements located out of the water basin area were almost equal. (Aysan, 2003)

# Administrative transformation analysis of Istanbul Metropolitan Periphery

In Table 8 and Figure 5, we can see how the population in the Istanbul Periphery is distributed in administrative terms of whether residents reside in a "municipality" or "village." In 1955, approximately 90% of the metropolitan periphery's population resided in villages and in "small towns" in rural areas; 10% lived in bigger towns and local municipalities.

**Table 8:** The Distribution of the Population in Istanbul Metropolitan Periphery in Relation to Administrative Units (SSI)

Location	1955	1965	1975	1985	1990
Periphery Municipality	28601	186171	112033	678447	1899904
Periphery Rural	236450	364674	236918	246020	296424

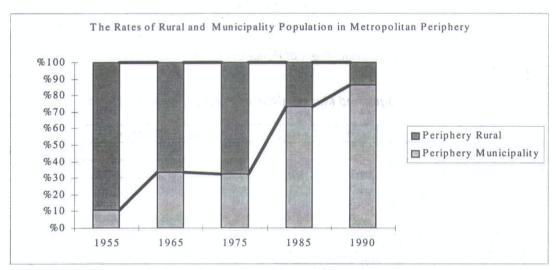


Figure 5: The Distribution of the Population in Istanbul Metropolitan Periphery in Relation to Administrative Units (GSI)

In contrast, in 1990, 86% of the population in the metropolitan periphery lived in peripheral municipalities and 14% of the population lived in rural settlement units with the administrative status of "village." In 1997, 88% of the population living in the periphery resided in settlements with the administrative status of "municipality," and 12% of the population lived in "villages." As is seen in figure 5 in 1955, only 10% of the periphery population lived in "municipalities," while in 1997, that figure rose to about 90%, demonstrating the significant administrative changes that occurred in the metropolitan periphery over that 40-year period.

The figure 6 and table 9 show the years in which periphery settlements gained recognition as a municipality: 1984, 11%; 1984-89, 25%; 1990-94, 58%; and after 1994, 6%. In 1950-97, the number of independent municipalities and rural settlements in the metropolitan changed according to politics, the military and the country's economy. As a result of these changes, the number of settlements with the status of "village" decreased steadily, while independent municipalities increased in number.

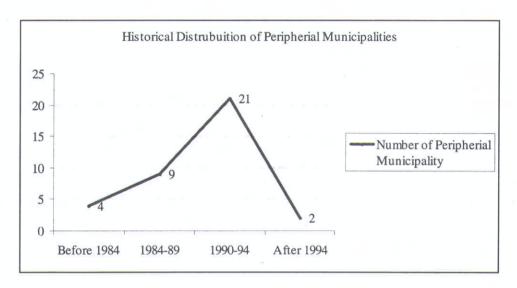


Figure 6: Historical Status Development of Periphery Settlements in Istanbul Metropolitan Area.

Table 9: Number of Villages and Municipalities of Periphery in Water Basin Area

	Number of Village	Number of Municipality
In Water Basin	84	17
Out of Water Basin	95	19

#### Sectoral analysis

Table 10 shows the sectorial distribution of the active population of Turkey and Istanbul. According to figures for 1960, in Turkey, about 75% of the work force was in the agriculture sector. In the same year, in Istanbul only 12% of the active population worked in agriculture. In 1960, Turkey had a 13% service sector share, and Istanbul had a 43% work force share in the service center. Between 1960-1990, the rate of employment in the agriculture sector fell from 75% to 57%. In Istanbul, the rate of agricultural employment fell to 5% from 12% between 1960 and 1990; this rate matches the figures for other metropolitan cities.

# Agricultural sector

Istanbul has been a major economic, social and cultural center since ancient times. Since then Istanbul, and its predecessors, have gained prominence -- apart from agriculture – with the city's economic engine powered by industry and services. While the number of people in the agriculture sector was 12% in 1960, it was 5% in 1990.

Small land-owning families represent a majority of this figure. According to 1991 agricultural statistics, on 50-acre plots of land, 74% of people owned the land and 29% shared ownership; the total amount of land under cultivation was 35%. The reason why the number of people who work small plots was so high is because of land laws that became valid after the 1950s and the effect of inheritance, which divided the land into smaller and smaller plots. Despite this, one distinguishing fact of Istanbul is that 2% of its land was uncultivated, resulting in small farmers disappearing; a figure that is 14% for the rest of the country. And 90% of landowners cultivated their own land, disregarding partnerships (SSI).

Table 10: The Distribution of the Active Population in Turkey and Istanbul Metropolitan Area (SSL Social and Economic Quality of Population)

	Agriculture	Industry	Services	Non explained	TOTAL
	%	%	%	%	%
TURKEY					
1960	75	7	13	5	100
1965	72	8	14	6	100
1970	68	9	21	2	100
1975	67	9	23	1	100
1980	60	11	28	1	100
1985	59	11	29	1	100
1990	57	13	30	1	100
ISTANBUL	1	77 9			
1960	12	25	43	20	100
1965	11	30	43	16	100
1970	11	29	54	6	100
1975	10	30	56	4	100
1980	6	34	59	1	100
1985	5	35	59	1	100
1990	5	33	61	1	100

## Manufacturing and service sector

When the total work force is looked at in the Istanbul Metropolitan, the number of employees was 2,539,963 in 1990. The work force breaks down to be 25% in the East and 75% in the West (Table 11). When the work force in the East and West are considered, three-fourths of the people employed in production and the services sector worked in the West. It can be followed in Table 12 and Table 13, that the distribution of the work force in the East and West were unequal. Employment rates make the differences between the Western and Eastern sides more significant. This requires that a decision be made in balancing population and employment in city planning. When employment and work places in the periphery settlements are examined, those over the age of 25 in the work force are concentrated in the peripheral districts. The work force under the age of 24 is concentrated in the central core districts. As can be seen from the results, in the periphery, industrial businesses and the work force rates are higher in comparison to the centers.

**Table 11:**The Distribution of Employment and Work Places in Relating to East and West

,	NUMBER OF WORK PLACES		NUMBER WORKERS	OF	RATE%
EAST	68.226	25	223.709		25
WEST	200.653	75	681.820		75
TOTAL	268.919	100	905.529		100

Table 12: The Distribution of Industry Employment in Relating to East and West

	NUMBER OF WORKERS	RATE	NUMBER OF INDUSTRY	RATE
EAST	107979	25,7	9795	18,8
WEST	312481	74,4	39631	80,2
TOTAL	420460	100	49426	100

Table 13: The Distribution of Services Employment in Relating to East and West

	NUMBER OF WOKERS	RATE	NUMBER OF WORK PLACES	RATE
EAST	115730	24	58471	26,6
WEST'	369339	76	161022	73,4
TOTAL	485069	100	219493	100

## Macroform analysis

The part of the study on the Istanbul metropolitan periphery development period analysis covers sociodemographic, economic, administrative and physical decisions in relation to data city macroform. Istanbul has always been an attraction for immigration. In Figure 7, the central and peripheral municipalities' distributions are shown for 1965. As the figure shows, in 1965 "peripheral municipalities" are near the central business district (CBD). Those settlements were later included in the CBD and the new periphery zone extended to the outskirts of the city.

With the population explosion in the 1970s, problems with accommodation and transport in Istanbul became more evident. Bridges over the Bosphorus and highways, which were built to ease transport problems, became the main determiner of the city macroform. With the rise of urban rents and prices, heavy industry spread to the outskirts of the city, and with a different system of support. During this period, supplying the demands of only the hinterland gained importance in the central levels. Figure 8 shows 1975 central and peripheral municipalities' borders as they were; peripheral municipalities started to develop outside the city. But the real development could be seen after the 1980s.

Illegal development, which sprang up with the waves of migration from rural areas after 1950, disappeared in certain central areas where there was an original "native" population, and showed an overall declining trend, while the peripheral zone grew in population after the 1980s, with little planning and equipment.

The 1985 Istanbul Metropolitan central core and peripheral municipality developments are shown in Figure 9. In 1997, central and peripheral municipality development are shown in Figure 10, which demonstrate how peripheral development in the Northwest and Northeast of the city covered the water basin and forested areas, which are vitally important for the Istanbul Metropolitan Area. (Figure 11)

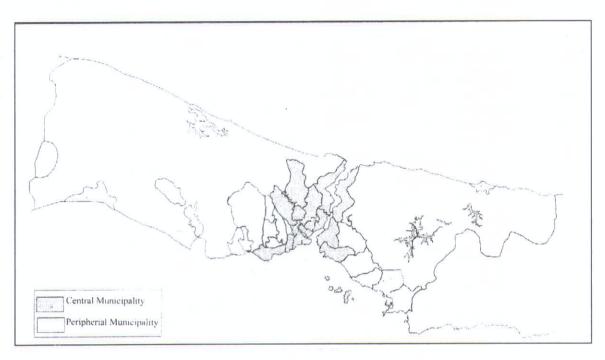


Figure 7: Development of Central Periphery Municipalities in Istanbul Metropolitan Area. (1965)

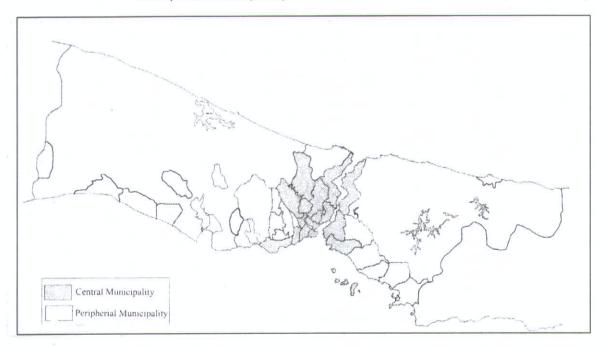


Figure 8: Development of Central Periphery Municipalities in Istanbul Metropolitan Area.(1975)

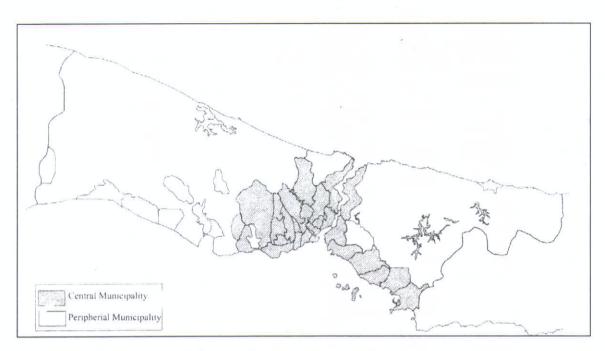


Figure 9: Development of Central Periphery Municipalities in Istanbul Metropolitan Area.(1985)

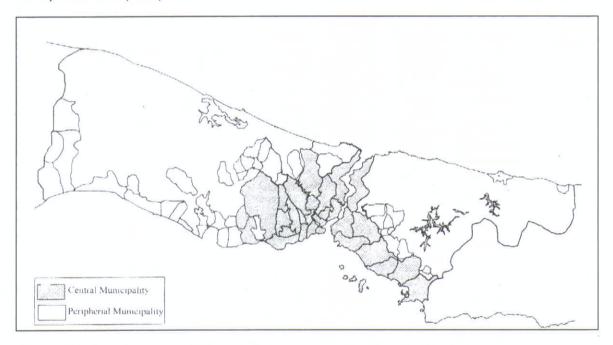


Figure 10: Development of Central Periphery Municipalities in Istanbul Metropolitan Area.(1997)

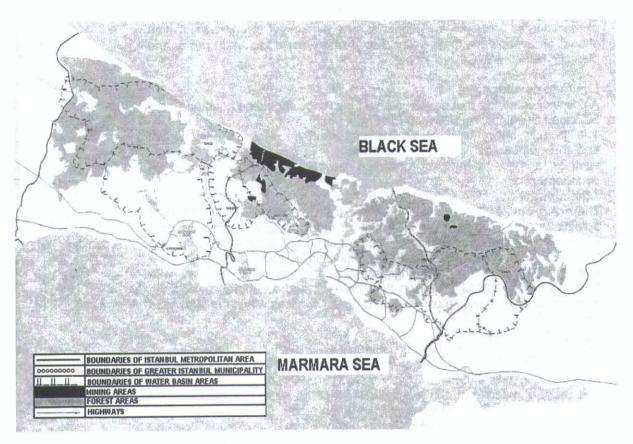


Figure 11: Water Basins and Forests Borders in Istanbul Metropolitan Periphery. (GIM, 1995)

### Conclusion and remarks

Important conclusions can be summarized under five main points:

Demographic analyses results show that the population of Istanbul, which had gathered mainly in those districts in the metropolitan core, began to spread to the periphery in time.

Economic structure analyses shows that in the metropolitan city periphery, industrial businesses and the work force rate are higher in comparison to the center.

The administrative analyses results show that between 1950-97, the number of independent municipality and rural settlements in Istanbul showed a shift in relation to political, military and economic trends in the country. As a result of these changes, settlement numbers in "villages" decreased steadily, while independent municipalities increased in number.

Macroform analyses results show that peripheral development in the Northwest and Northeast of the city came to cover the areas of the water basins and forested areas, vitally important to the city.

The final objective of the research was to demonstrate using statistical results and physical trends that the Istanbul Metropolitan Area is expanding to its periphery. The last and most important conclusion is the urbanization of the Istanbul Metropolitan Periphery. The dynamism of peri-urbanization should be accepted without delay. Some of the more important policy and planning issues are highlighted below.

## Limits to development

A policy of control to limit development of the fringe should be adopted.

Balanced Development Between East and West

The disparity between Istanbul's East and West – in terms of employment and the number of places of employment – is clear. In urban strategic planning, it is important to set a balance between the East and West in the peripheral zone.

#### Administration

There are problems that result from the transformation process that city administration has undergone. All small- or medium-sized settlements tend to be "independent municipalities." The redrawing of local municipalities and the boundaries of the greater Istanbul Municipality might be necessary. A radical solution is to split the fringe shires and merge the urban parts with the large fringe municipalities on their borders, and therefore develop the potential for a larger and more diverse range of services within the expanded municipalities.

**Environmental qualities** 

The rapid population growth that Istanbul, along with other large cities in developing countries, has experienced has had a marked effect on the city itself and also its environs.

The result of macroform analysis indicates that the water basins of Istanbul are under a serious threat by rapid peri-urbanization. Given the population trends, there should be more recognition of and protection for the environmental qualities of the metropolitan area. An institutional and administrative framework must be clarified. Coordination between periphery authorities and the greater municipality of Istanbul is essential.

Planning

When planning the settlements in the Metropolitan city periphery, the geographic location of the settlement (water basin area, forestry, urban development area, etc), the building site, the population size and local qualities in relation to public investments should be shaped in the planning.

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# Metropoliten ölçekte çeper-kentleşmesi analizi: Istanbul metropoliten alan örneği

Kentlerin planlanmasında, geçirdikleri sürecin ve bu süreçte meydana gelen dönüşümün incelenmesi planlama disiplinin temelini oluşturmaktadır. 20.YY. ikinci yarısından sonra kentleşmenin etkisiyle tüm dünyada kentlerin sosyo-demografik, ekonomik ve mekansal yapılarında önemli değişimler meydana gelmiştir. Bu değişim ve dönüşüm yalnız kentlerin içinde değil, aynı zamanda kentlerin çeperlerinde / saçaklanma alanlarında da etkili olmuştur.

Metropoliten kentlerin çeperlerinde/saçaklanma alanlarında görülen bu değişim ve dönüşüm süreci çok yönlüdür. Metropoliten kent çeperinde bulunan ve yıllardır 'kırsal' özellik taşıyan köy yerleşmelerinin, metropoliten kentin etkisiyle sosyo-demografik, ekonomik, yönetimsel ve fiziksel yapıları değişmektedir. Bu kırsal yerleşmelerin bir çoğu kentin gelecekteki gelişme alanında yer alacak ve önemli kentsel fonksiyonlar üstlenecektir. Bu açıdan metropoliten kent çevresindeki kırsal yerleşmelerin kentin büyüme sürecinde ne gibi etkileşim ve dönüşüm geçirdiklerinin bilinmesi ve metropoliten alan sınırları içindeki konum ve niteliklerinin belirlenmesi metropoliten planlama ve yönetim organziasyonunda önem taşımaktadır.

Metropoliten kent merkezi ile çeper arasındaki bu etkileşim ve bütünleşme ülkemizdeki planlama pratiğinde de yerini bulmuş ve metropoliten nitelik taşıyan pek çok kentimizin, kentin çeper bölgelerini de içine alan metropoliten alan nazım planları yapılmıştır. Ancak nazım plan sınırlarının çeperdeki dönüşüm ve dinamizme bağlı olarak değerlendirilmediği, planlamanın da kırsal ve yarı kırsal yerleşmelerin nitelikleri göz önüne alınmadan gerçekleştirildiği gözlenmektedir.

İstanbul metropoliten alanı merkez bölgesindeki sosyo-ekonomik, demografik ve yönetimsel hareketliliğin yanı sıra çeper bölgede özellikle 1980'lerden sonra güçlü bir hareketliliğin yaşandığı bilinmektedir. Çeperdeki sorunları sadece mekansal genişleme ve nüfus büyümesi olgusu olarak değil, bir 'sosyo-ekonomik demografik ve yönetimsel yapı dönüşümü olgusu' bağlamında değerlendirmek gerekmektedir. Kent çeperinde sosyo-demografik, ekonomik, yönetimsel ve mekansal olarak yaşanan bu dönüşüm İstanbul metropoliten alan planlamasında gözardı edilemeyecek boyuttadır. Çalışmanın ilk bölümünde gelişmekte olan ülkelerde kent çeperindeki dönüşüm, metropolitenlesme süreci bağlamında değerlendirilmektedir. Çalışmanın ikinci

bölümünde , İstanbul Metropoliten Alanı'nda çevresel yayılma olgusunun sosyodemografik, ekonomik, yasal ve yönetimsel analizi yapılarak bu analiz sonuçları kent mak: oformu ile ilişkilendirilerek, çeper- kentleşme olgusunun mekansal nitelikleri irdelenmektedir.

İstanbul metropoliteni ceperindeki gelisim süreci analizinin ilk bölümünü demografik süreç analizi oluşturmaktadır. İstanbul Metropoliten Alanı'na olan nüfus hareketlerinin tarihsel süreç içersinde hızlanarak devam etmesi sonucu, İstanbul metropoliteninin Türkiye toplam nüfusundan aldığı pay 1950'de % 5 iken 1997'de %15'e yükselmiştir. Türkiye kırsal nüfusundan aldığı pay ise; % 4.6'dan % 2.3'e düşmüştür. Çeperdeki yerleşmelerin nüfus büyüklüklerine göre dağılımları, bu dönüşümü çarpıcı bir şekilde ortaya koymaktadır. Özellikle Batı yakasında 0-400 nüfus grubundaki yerleşme sayısı oranı giderek azalırken, 2001-5000 ve 5001-10000 nüfus grubundaki yerleşme sayısı Çeperdeki nüfus hareketleri, zaman oranı yükselmektedir. değerlendirildiğinde; Batı ve Doğu çeperinde yoğunluk artış hızı 1990'larda en üst seviyeye ulaşmaktadır. Yerleşmelerin 'belde belediyesi'ne dönüşümlerinin en yoğun olduğu dönem yine 1990-94 tarihleri arasına rastlamaktadır.Çeperde bu hızlı dönüşümü yaşayan yerleşmeler, konumları itibariyle değerlendirildiğinde; %50'ye yakınının içme suyu havzaları içinde olması, çeperdeki sorunların yalnızca sosyodemografik ve yönetsel değil aynı zaman da çevresel boyutlarının da olduğu göstermektedir. 1950-97 döneminde İstanbul metropoliteni çeperinde belde belediyesi ve kırsal yerleşme sayısı; ülkedeki siyasi seçmeler, askeri müdahaleler ve ekonomik kararlar doğrultusunda değişiklik göstermiştir. Bu değişiklikler sonucunda 'köy statü'sündeki yerleşme sayıları süreç içinde giderek azalma gösterirken, belde belediyesi sayısında da artış görülmüştür

İstanbul metropoliteni çeperi gelişim süreci analizinin 2.bölümünü ekonomik yapı analizi oluşturmaktadır; İstanbul her dönemde, sanayi ve hizmetler sektörünün ağırl:kta olduğu bir kenttir. 1960 yılında, Türkiye'de aktif nüfusun %75'inin tarımda çalıştığı dönemde bu oran İstanbul'da %12'dir.1990 yılında % 5'lik bir paya sahip olan tarım sektöründe küçük topraklı işletmeler ağırlıktadır. Doğu ve Batı yakalarında istihdam ve iş yerlerinin dağılımı dengeli değildir. Batı yakası, toplam istihdamın ve iş yerlerinin 2/3'sini barındırmaktadır. İlçeler bazında istihdam ve iş yeri oranları incelendiğinde, yapılan projeksiyonlar, merkezdeki göreli azalmaya karşın, çevre ilçelerde yoğunluk artışı olacağını göstermektedir. Bunda sanayinin desantralizasyon karralarının etkisi olduğu açıktır.

İstanbul metropoliteni çeperi gelişim süreci analizinin son bölümünde; sosyodemografik, ekonomik, yönetimsel ve planlama ile ilgili veriler kent makroformu ile ilişkilendirilmiştir. 1965 'de merkez ve çeper belediyelerin İstanbul Metropoliten Alanı'ndaki dağılımında 'çeper' belediyeler bugünkü MİA. Alanı'na yakın hatta bitişik konumdadır. Bu çeper yerleşmeleri daha sonra MİA içinde kalacaklar, ve yeni çeper kentin diş eteklerine kayacaktır. 1970'lerde İstanbul büyük bir nüfus yığılmasının etkisiyle konut ve ulaşım gibi çok büyük sorunlarla karşı karşıya kalmıştır. Bu dönemde ulaşıma çözüm olarak gerçekleştirilen Boğaziçi köprüsü ve çevre yolları kent makroformunun temel belirleyicisi olmuştur. 1975 yılında merkez ve çeper belediyelerin sınırları kent dışında gelişmeye başlamıştır. 1980'lerden sonra yoğun göç alan 2.ve 3. kuşak çeper alanlar, plana bağlı olmaksızın, altyapısız ve donatısız olarak hızla büyümüştür. 1985 yılından sonra İstanbul metropoliteninde merkez ve çeper belediyelerin gelişimi İstanbul Metropoliteni için kentsel önem arzeden içme suyu havzaları ve orman alanlarında gerçekleşmektedir.

Çalışmanın son bölümünde, 'metropoliten kent çeperi'ndeki dinamizme bağlı olarak belirlenen gelişim ve ilişkiler analizi' çerçevesinde metropoliten kent çeperinde, çepe:-kentleşmesinin olumsuz etkilerini azaltmaya yönelik olarak planlama stratejilerinin belirlenmesini içeren öneriler geliştirilmektedir.