

THE GROWTH AND DEVELOPMENT OF METROPOLITAN PLANNING STRATEGIES IN ISTANBUL

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1. INTRODUCTION

In recent years because of the reasons such as rapid expansion of high technologies depend on especially the development of information technology, the change of power in the world economy from Atlantic to Pacific and the rivalry in the global markets, metropolitan areas in the global quality of the world economy, restructuring process occurred and caused rivalry among the international metropolitan areas. Information- communication society of the future will have a structure style affecting urban land use texture.

Istanbul's geographic, political, geo-cultural advantages, historical culture, developments in infrastructure in recent years must be seen as the potentials and opportunity to be an international metropolitan centre.

In Turkey the process which defines urban style in the urbanisation process have changed.

- As the urban population increases, both the urban size and the number increases,
- As the urban scale change their quality, formation shape differentiate.

The rapid increase in the urban population in Turkey from the end of 2nd World War to 1960's cause an oil stain growth by adding buildings to the existing urban structure. After the 1970's this process began to change.

Because of organised industrial areas, industrial sites, mass building projects, the trend of decentralisation of government and private institutions, increase in having car, the trend of using service cars of government and private institutions' staff- the formation of cities change their quality. With the implementation of local great projects, apart from city centre and several parts without being a whole, unhealthy and uncontrolled growth of urban texture occur.

After 1970's the concept of municipality developed in Turkey. Increase in the strengthen of municipalities and important decisions related to the city made by municipality's representatives are necessary for the development of democracy.

The projects developed by government up to now tried to solve urban problems by separating them each other without a whole urban policy and local institutional frame. In general, government couldn't understand clearly the effects of macro-economic programs on urban economy; people charge of urban projects couldn't grasp their own activities on macro-economic structure. As a result of it, one of the most important defect of the efforts to solve the urban problems is, not to give importance to productivity around the urban economy.

Macro-economic decisions taken in country scale draw a wide economic frame for the economic activities in cities. These kind of macro decisions affect energy and water prices, production costs, sector developments by encouragement, taxes.

Local administration expenses haven't taken into consideration, the productivity of urban economic and harmony with macro-economic aims and affect the financial equilibrium negatively. Beside this, insufficient infrastructure, low production of house and building land, insufficiency in financials of urban services decrease economic productivity in cities and affect macro-economic equilibrium negatively.

First macro planning studies related to whole metropolitan area began in 1974 and approved in 29th of July in 1980 by Ministry of Public Works named Greater Istanbul Metropolitan Area Master Plan.

With a law in 1984 Presidency of Greater Municipality of Istanbul founded and several government powers (planning, construction applications and so on) transferred to Municipality. Greater Municipality of Istanbul began a new macro planning study because of the inapplicable 1980 Plan and approved in 15th of November in 1995.

2. THE EXISTING CONDITIONS OF ISTANBUL METROPOLITAN AREA

With 5512 km² area, Istanbul covers nearly 0.97 % of total area of Turkey and it's the greatest province of country for population size. According to 1990 general census, Istanbul covers nearly 13 % of Turkey's total population with it's 7.3 million population.

The importance of Istanbul Metropolitan area in Turkey:

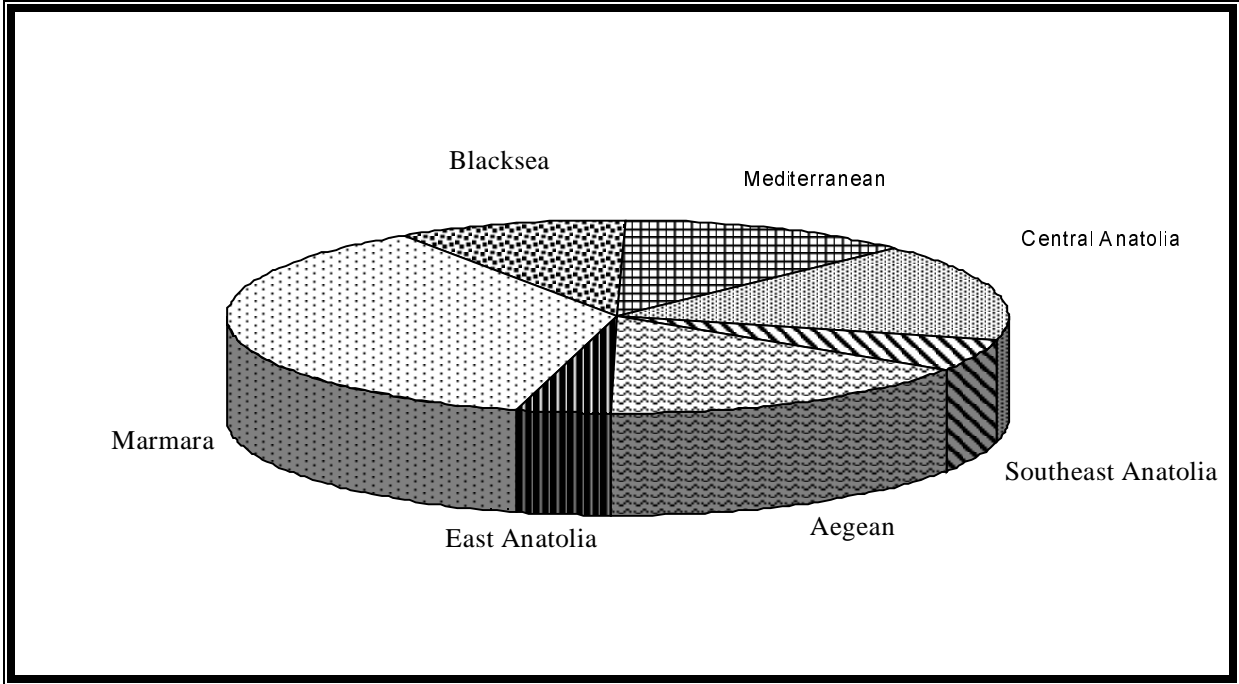
The most important information to determine the speed of development and progress is the proportion of Gross National Product. With the 1996 prices Gross National Product development rate is shown in Table 1. The interesting thing is that Marmara Region has the greatest rate with 36.6 %. Another thing is that Aegean Region with 96.2 % development rate is the second and Black Sea Region with 94.5 % is the third, Marmara Region with 89.2 % is lower than the national average.

Table 1. Distribution Of Gross National Product According To Regions

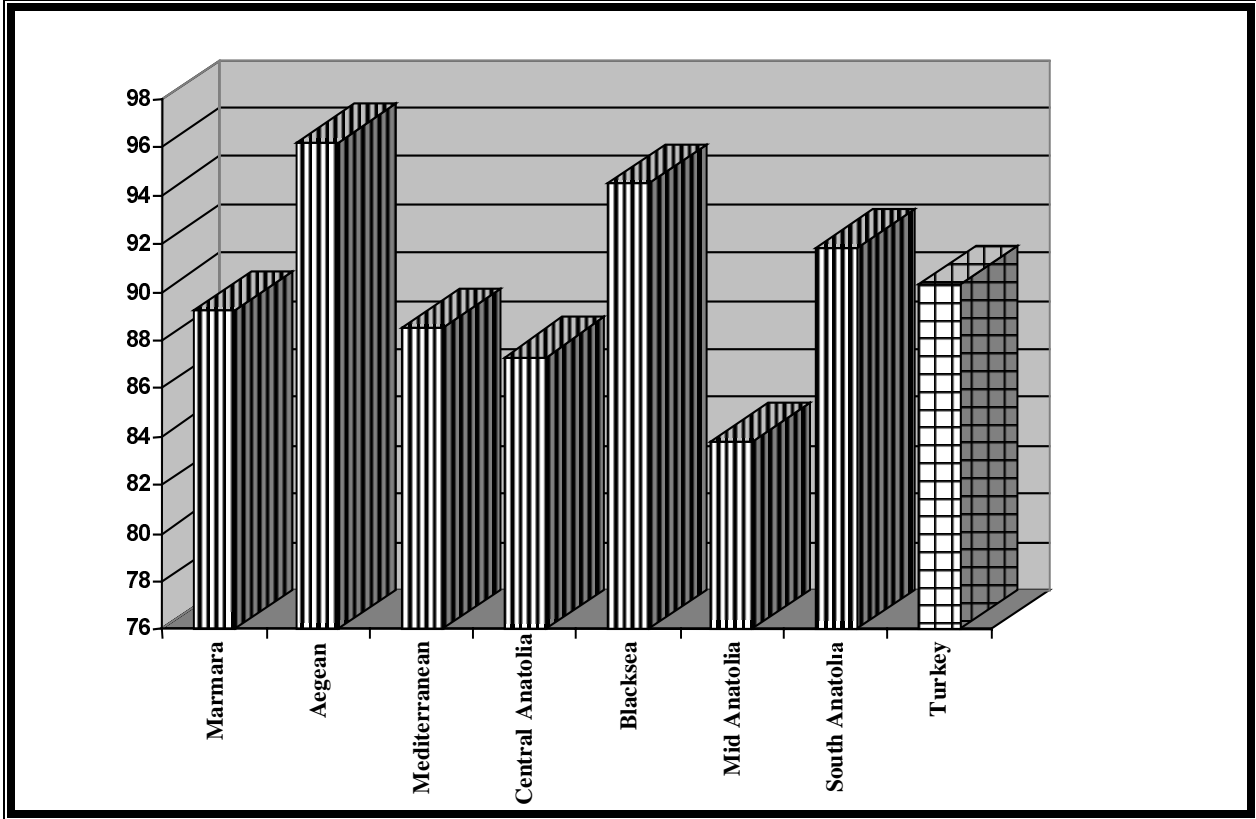
Regions	Gross National Product (%)	Development Rate (%)
Marmara Region	36.6	89.2
Aegean Region	16.1	96.2
Mediterranean Region	12.3	88.5
Central Anatolia Region	16.4	87.3
Blacksea Region	9.4	94.5
East Anatolia Region	3.8	83.8
Southeast Anatolia Region	5.3	91.8
TURKEY	100	90.3

SOURCE: General Population Census Data, 1996 *Gross National Product Results*, Sep. 26th 1997

Graphic 1. Distribution Of Gross National Product According To Regions



Graphic 2. Development Rates Of Gross National Product According to Regions



The Gross National Product order of provinces are Istanbul (21.3%), Ankara (7.9%), İzmir (7.4%), Kocaeli (4.5%), Bursa (3.8%), Adana (3.5%), İçel (2.7%), Antalya (2.6%), Konya (2.3%) and Manisa (2.3%). The proportion of provinces in sum is 58.3%.

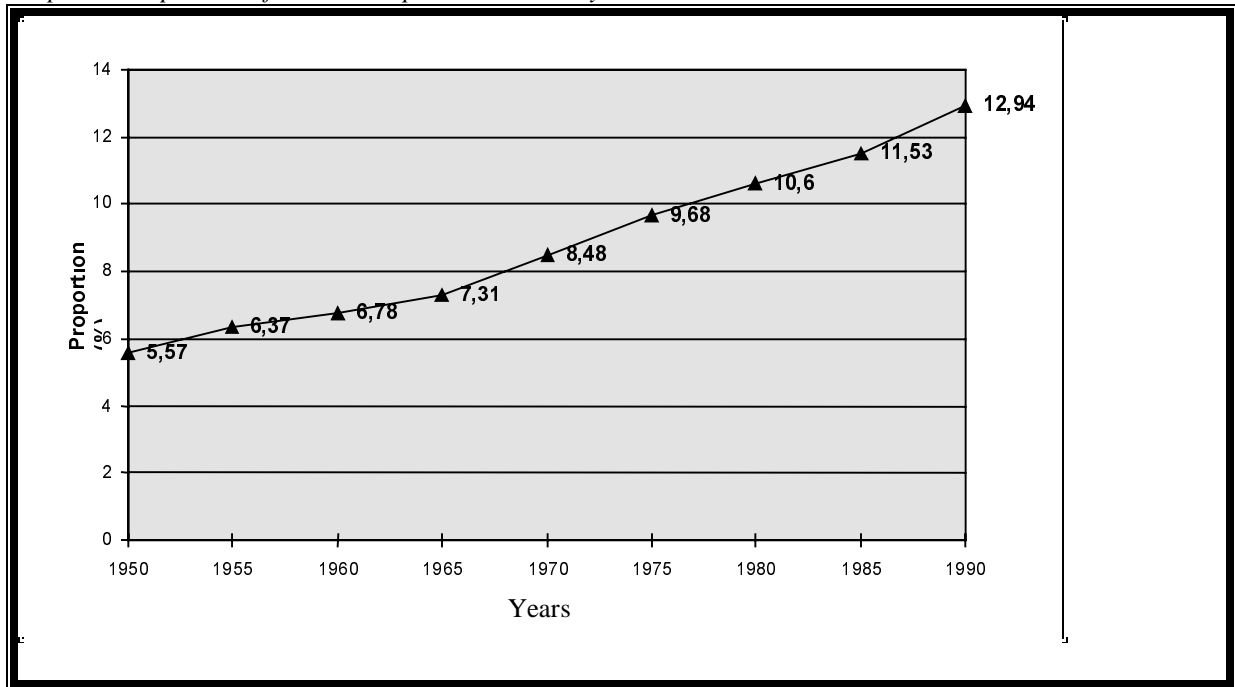
While the proportion of Istanbul Metropolitan Area in Turkey population is 5.6 % in 1950, it rises to 13 % in 1990. As a result of the industrialisation and engineering in agriculture in 1950's, besides the migration from rural to urban, especially population movements to Istanbul Metropolitan Area went on to increase in historical process. The share of Istanbul in Turkey's population increase continuously and in 1990 it rises the greatest proportion with 0.13 %. (Table 2) Annual population increase rate is 0.4478 % and population density is 1.280 person/km².

Table 2. Population Values Of Turkey and Istanbul

Years	Turkey	Istanbul	İst/Turkey Proportion(%)
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	10,60
1985	50.664.458	5.842.985	11,53
1990	56.473.035	7.309.190	12,94

SOURCE : General Population Census Data,1990

Graphic 3. Proportion Of Istanbul Population In Turkey



While the population share of Istanbul in Turkey and Marmara Region increases continuously, total population increase rate decreases after 1975. (Graphic 4)

Graphic 4. Turkey, Marmara Region And Index of Istanbul Population Increase

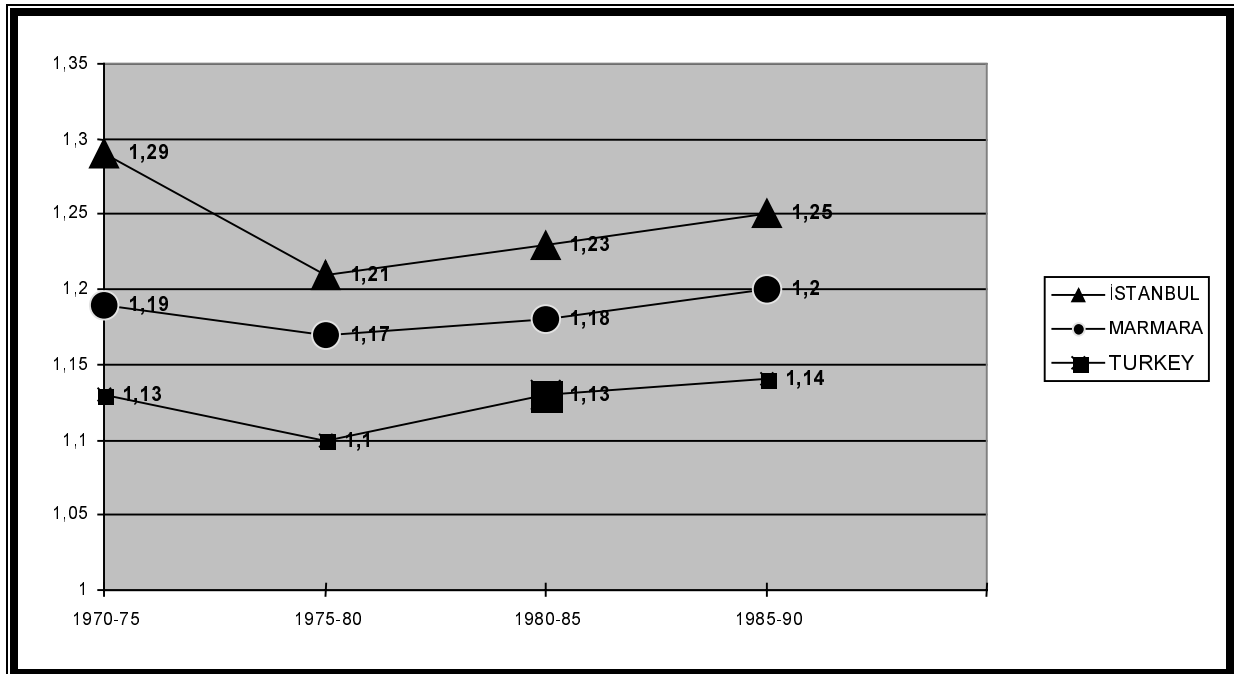
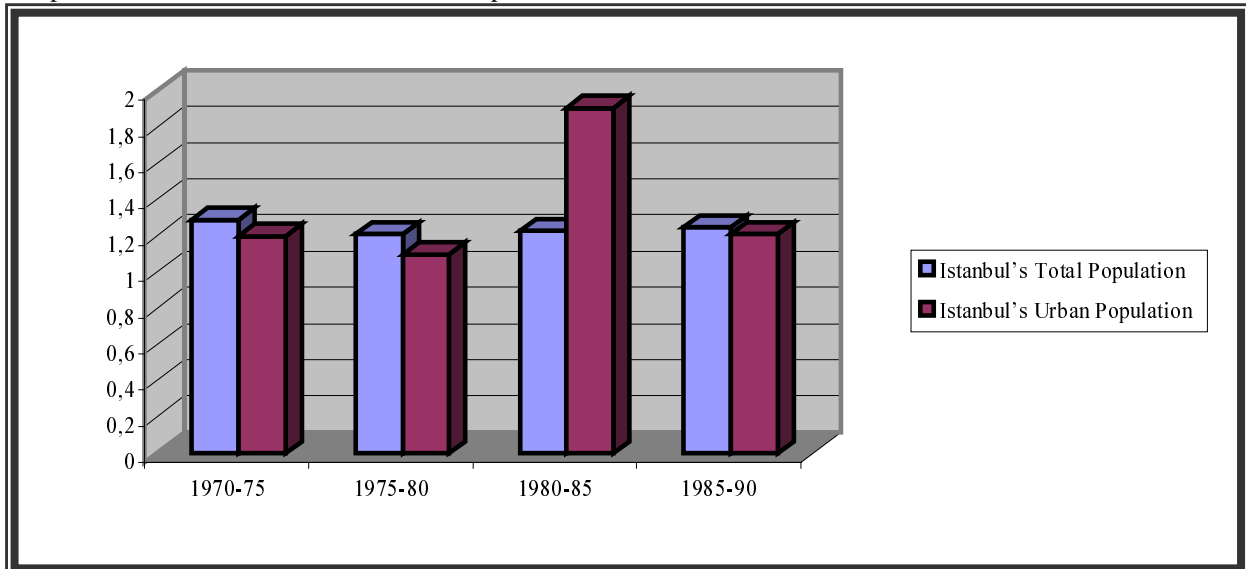


Table 3. Index Of Istanbul's Total and Urban Population Increase

Years	Istanbul's Total Population	Istanbul's Urban Population
1970-75	1,29	1,20
1975-80	1,21	1,10
1980-85	1,23	1,91
1985-90	1,25	1,21

SOURCE: General Population Census Data,1990

Graphic 5. . Index Of Istanbul and Urban Population Increase



The increase population rate of Istanbul is because of the high domestic migration. To be in the intersection point of country and regional transportation network, have direct transportation with all regions, several business opportunities, more infrastructure and social facility areas than other regions cause migration.

When the total employment is examined, the number of working people in 1990 is 2.539.963.

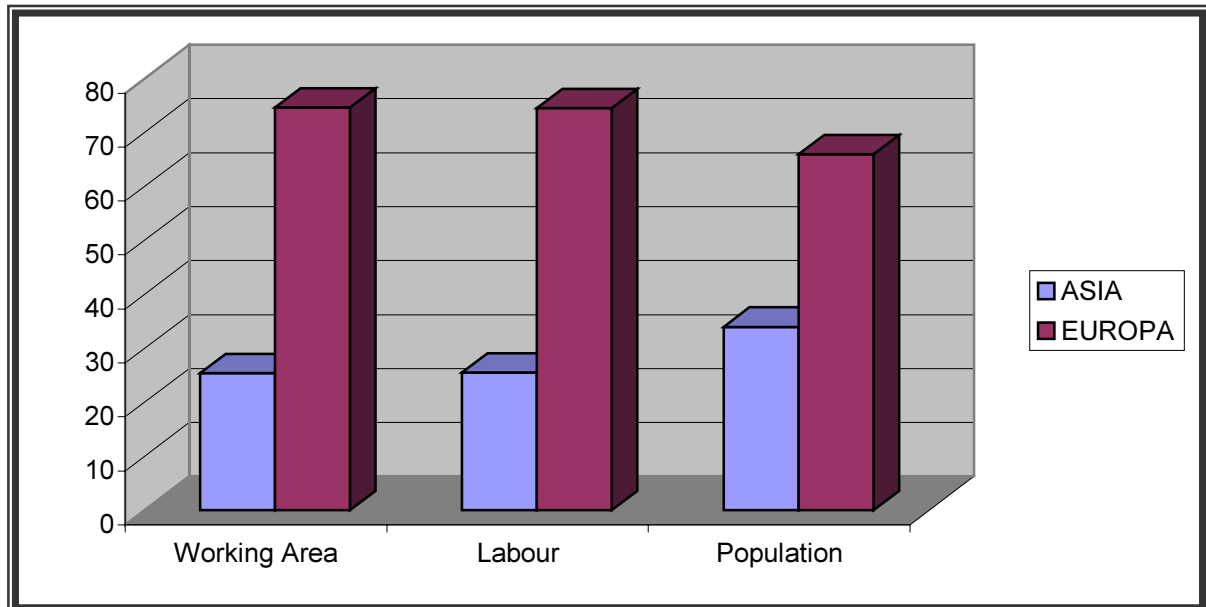
Table 4, Graphic 6 shows the transportation between Asia and Europe.

Table 4. Working Area Distribution In Istanbul Metropolitan Area

	WORKING AREA	PROPORTION (%)	LABOUR	PROPORTION (%)	POPULATION PROPORTION (%)*
ASIA	68.266	25,4	223.709	25,5	34
EUROPA	200.653	74,6	681.820	74,5	66
TOTAL	268.919	100	905.529	100	100

SOURCE: General Population Census Data, Industry and Workplaces Census,1992
General Population Census Datas,1990

Graphic 6. Working Area Distribution In Istanbul Metropolitan Area



3. ISTANBUL METROPOLITAN AREA SUB-REGION MASTER PLAN

1/50 000 scale Istanbul Metropolitan Area Sub-Region Master Plan which had begun in 1994 was accepted unanimously by Greater Municipality Council in November 15th in 1995.

AİM

By the year 2010, it is aimed to establish the balance between conservation and development for Istanbul as a city that unites with the economic structure of the world and the region (Middle East, Balkans, Europe and Islamic Countries) , that uses the regional opportunities well and assumes a pioneering role in this structuring, emphasising history, culture, science, arts, politics, trade and services, while embracing the history, it carries at the universal level, and its cultural and natural characteristics; attributing it the status of a world-known city today just as in the past, in accordance with its historical and cultural identity while ensuring its growth and development in coherence with the progress of the country and the region while achieving its place among the ranks of world metropolitan cities in the process of world's economic development.

Main Strategies:

The main strategies of the Istanbul Metropolitan Area Sub-Region Master Plan are as follows:

- Rule Of Specialisation: Within the encompass of Metropolitan Area Sub-Region planning the housing-work relations of especially those who are new comers by resolving it in a rational manner and improvement of this relations which were ill defined in the previous structure, within the framework of a plan.
- Rule Of Ranked Centres: In order to achieve the decentralisation on population in the entire Metropolitan Area Sub-Region suggesting wing-attraction centres and ensuring the development of these as primary centres. Achieving the growth of the urban macroform in a linear and multi-centered fashion with a degree of ranking.

- Rule Of Ranked Density: In accordance with the analysis carried out for the whole of Istanbul, decreasing the sustainable population densities gradually from the centres to outwards, and decreasing the mean values.

GROWTH AND DEVELOPMENT AIMS

With urban values occur from different cultures, natural beauties and geographic location, Istanbul has a special place in world history and among world metropolitan areas. It has national and international commerce and tourism and high level of urban services in national level and 7th grade centre feature.

For the whole metropolitan area; in the potential areas defined by natural and socio-economic threshold, ensuring spatial and administrative settlement entirely, almost self-sufficient size, leaving green belts among compact settlements, having urban and social facilities are accepted to develop Istanbul in a linear and multi-centre form.

POPULATION

According to population projections found depend on these criteria, population of Istanbul metropolitan area for 2010 is estimated to be between 13-14 million people.

- Ranked density,
- Conservation of forests and water reservoirs,
- Suggestion of new urban and natural protection areas,
- Obstacle of high buildings within Beşiktaş-Maslak region,
- Economic dullness and making no investment (increase in the investment to south-east provinces of Turkey in order to prevent the balance among regions),
- The balance of population and the need of social facility,
- The prevention of the construction of the 3rd Bosphorus Building (Alternatively, the suggestion of Bosphorus Tube Passage),
- The decentralisation of Industry,
- The decentralisation of Haydarpaşa Harbour,

LAND USE DECISIONS

Industry

Sectors of manufacturing industries which have contamination effect, over 10 000m² building area, more than 500 labour, low value added, high capacity of power equipment, established in water collection reservoirs and inner city will be evacuated out of metropolitan area. Other manufacturing industries necessary for city centre and having 1-9 employee will be rehabilitated.

Trade and Services

Today's structure will cause an increase in healthiness of metropolitan centre and make impossible the aim of being a cultural, international economic, financial decision centre. One of the aim of the plan is to omit the new population distribution and new centres, and transportation systems of new settlements and the macroform.

Metropolitan Centre :

The metropolitan centre on the west side of the city consists of subcenters with different characteristics.

- The Historical Peninsula and the Beyoğlu region , 'Historical, Commerce, Service And Tourism Centre',
- The area within the Şişli-Beşiktaş-Maslak-Levent region 'Trade Area To Be Rehabilitated',
- The planned industry region of Topkapı, Maltepe-Rami, 'The Central Business Area That Is Transformed From Industrial Uses',
- The Ferhatpaşa region that is incorporated with the Topkapı-Maltepe Central Business Area ' Trade Development Area',

Sub centres:

Apart from the metropolitan centre, on the east and west side of the city, 1st, 2nd and 3rd degree centres mainly occur from trade and service functions full of agents specialised in management, co-ordination and finance are prepared.

OTHER LAND USES

Harbour

One of the important decisions of the plan is the decentralisation of Haydarpaşa harbour to Tekirdağ, Karasu or Kdz. Ereğli. Existing harbour will be used for boats, ferryboats and recreation.

Airport

Existing airport is surrounded with new settlements and isn't enough to answer the needs. It's necessary to have two different airport in transforming to international culture, trade and decision centre. On the west side in Çorlu and on the east side is Kurtköy new airports are planned to decrease the existing airport.

Bosphorus Tube Passage

Today the two bridges of Istanbul are in sufficient to carry the transformation demand. An important problem of Istanbul is the unhealthy integration and functional relations between two sides. So third, fourth bridgesThe thing we have to know is that the capacity of the bridges will be insufficient before the suggested services. In 1966 government made a deal to combine London, Selanic, Varsova, Sofia rapid rail systems to Ankara. The lines suggested from Ankara to Tehran are planned to extend to Baku and south today. Consequently, man movement are more important than vehicle movement and planning concerning with international transit passage, energy and water transport lines suggested tube passage between the two parts of Istanbul.

4. CONCLUSION

According to the main strategies of land use decisions of 1995 Master Plan, the organised population, employment distribution (Bosphorus Passage) and decentralisation (Historical Peninsula) results are shown at the Table 5.

When Bosphorus Passage is examined depend on the organised population and employment distribution, the results of the model of Transportation Master Plan for 2010 are:

Table 5. Visits Between Two parts Of Istanbul (person/hour)

	ASIA-EUROPA		EUROPA-ASIA		TOTAL PASSAGE	
	1995	2010	1995	2010	1995	2010
PRIVATE CAR – SERVICE	26.559	9.661	1.171	5.656	27.730	15.317
MASS TRANSPORTATION	32.539	15.948	2.923	11.080	35.462	27.028
TOTAL	59.098	25.609	4.094	16.736	63.192	42.345

As a result of land use decisions showing population and employment equilibrium between two parts, there is a decrease in private travel for 45%, mass transportation for 24% and in total for 33% in the Bosphorus Passage depend on the push and pull travel between east and west sides for the year 2010.

Depend on the decentralisation of Historical Peninsula, the main traffic lines in Eminönü and Fatih were examined. Some of the data related to the Peninsula's existing land use structure and 2010 Master Plan land use decisions are shown in Table 6.

Table 6. Land Use Data Of Historical Peninsula For Now And The Year 2010

	POPULATION		NUMBER OF STUDENT		INDUSTRY		SERVICE-TRADE		STU.+INDUS.+SER.	
	1995	2010	1995	2010	1995	2010	1995	2010	1995	2010
EMİNÖNÜ	77761	55105	55840	57561	99929	----	41978	106794	197747	164355
FATİH	547543	278375	23326	21380	216446	----	90934	154956	330706	176336
TOTAL	625304	333480	79166	78941	316375	----	132912	261750	528453	340691

With the help of the model used in Istanbul Transportation Master Plan in/out traffic volume of Historical Peninsula, Private cars (passenger per car) and mass transportation (person) for the existing structure and 2010 Master Plan land use decisions were calculated and shown in Table 7.

Table 7. Transportation Master Plan Model, Results Of Values Of Historical Peninsula Traffic-Travel

CURTAIN LINE	1995				2010			
	PULL		PUSH		PULL		PUSH	
	ppc	person	ppc	person	Ppc	person	ppc	person
RAMPORT	20562	43908	11090	15304	15785	41131	12034	16094
HALIÇ	11672	24304	6284	14431	11338	13965	7361	18273
TOTAL	32234	68212	17374	29375	27123	55096	19395	34367

PPC: Passenger Per Car

RAMPORT CURTAIN- Coast Road, Yedikule, Silizrikapı, Millet Avenuei, Vatan Avenue, Fevzipaşa Boulevardı, Ayvansaray, Railwayi, Sirkeci-Zeytinburnu Trolley and Aksaray-Otogar LRT

HALIÇ CURTAIN- Old Galata bridge, Atatürk Bridge, New Galata Bridge ve Ferryboats

As examined in Table 6, the sum of industry, service, trade and student is 528 453 for today while it's expected to be 340 691 people for the year 2010. With the decentralisation of manufacturing industry from Historical Peninsula, the proportion of employment decrease 36%. As a result of 2010 land use decisions, push and pull travel of the region decrease 19%.

The existing road web of Historical Peninsula are the 11% of the total area of the region even it's evaluated only main traffic lines. The solve the transportation problem isn't possible with adding new roads, even the financial problem is solved. Transportation demands have to be directed according to new land use decisions.

Consequently, with the planning occurring equal regions within themselves, a healthy and organised urbanisation, a decrease in transportation problems and more conservative historical-cultural texture will be enabled.

Even though it's natural and important for the planning area to contain the space of problems, relations and solutions related to planning issue, it's impossible to plan Istanbul within Greater Municipality borders defined in 3030 numbered law, since it's social, economic relations integrated with Murmur West Blacks, North Aegean and West Anatolia regions.

For this region, Plan developed some suggestions out of these borders too and defined some working decisions for realising future suggestions.

The harmony between macro-economic aims and urban economics, with the beginning of a dynamic process in government and municipality relations macro decisions which is taken in national level should be planned, applied and controlled with discipline in a short period.

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