



İZMİR

Situational Analysis

June 2009





İZMİR

SITUATIONAL ANALYSIS

June 2009

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SITUATIONAL ANALYSIS

Within the context of the 2009-2013 İzmir Regional Development Plan of İzmir Development Agency, determination and analysis of the current situation of the city of İzmir has come foremost within the Plan's preparation works. One of the fundamental steps in the strategic planning process is the Situational Analysis of İzmir. In order to develop aims, goals and strategies directed towards future, initially the question of “where are we” should be answered. Therefore the “A Socioeconomic Outlook for İzmir Region (TR 31)” has been prepared and issued.

Within the Situational Analysis framework, a partner analysis has been made, and thus approximately 500 institutes and organizations have been determined as direct and indirect partners, prioritized, their views and advices have been noted and evaluated. Determining the current situation of İzmir brings out the region's potentials and opportunities, and its deficient or weak points. The strong points of İzmir, which have been defined in the study of İzmir Situational Analysis, will bring light unto the goals we shall aim towards in the future while the weak points will constitute basis for the measures to be taken.

İzmir Situational Analysis has been carried out by the experts of İzmir Development Agency based on face to face interviews with public, private and civilian sector segments, focus group studies, workshops and survey applications. The most actual data accessible at time of study have been used. Updating certain data as time passes is also important in order to see the situation clearly and to advance with the correct strategies.

The study in question is among the essential bases of İzmir's 2009-2013 Regional Development Plan. Determining the socioeconomical needs of İzmir will be instructive towards defining which fields shall the financial support programs be assigned into, in terms of

acknowledging the priorities and aims within the Plan.

Throughout the SWOT Analysis studies that included approximately 400 representatives of institutions and organizations in 28 districts, potentials and opportunities have been defined also based on districts, and recommendations have been developed as to how the lacking and weak points may be eliminated.

In workshops held in the context of the determined thematic and sectoral development axes, approximately 250 people have come together on different platforms and have developed aims and development scenarios with a shared mind.

The face to face interviews have been done with the provincial directorates -coming foremost, industry, commerce and craftsmanship chambers, industrialist and businessmen associations, association and foundation administrators, universities and research institutes.

In context of this analysis; we would like to present our special appreciations to Assoc Prof Vahap Tecim aiding in efforts for constructing maps, and İzmir TÜİK (Turkish Statistical Institute TurkStat) Regional Directorate staff aiding in communicating the actual data without delay to our side and in correct interpretation of the data at every stage of the analysis, for their interest, efforts and sharing our enthusiasm.

We also present our appreciation to all public sector, private sector and non-governmental organization representatives who shared their observations, information, knowledge and experiences with us either via giving interviews or via attending workshops with focus groups and thus made this analysis possible.

Dr. Ergüder CAN
Secretary General

ABPRS	Address Based Population Registration System
ALOSBİ	Aliğa Organized Industrial Zone
BASİFED	Western Anatolian Federation of Industrialists' and Businessmen's Associations
BEGOS	Buca Aegean Textile Organized Industrial Zone
CAP	Common Agricultural Policy
CC	Concentration Coefficient
da	decare (1000 m ²)
DEÜ	Dokuz Eylül University
DHMI	General Directorate of State Airports Authority of Turkey
DİE	State Institute of Statistics
DPT	Undersecretariat of State Planning Organization (Devlet Planlama Teşkilatı)
DTM	Undersecretariat of Foreign Trade (Dış Ticaret Müsteşarlığı)
EBIC-EGE	Ege Business and Innovation Centre
EBİITEM	Ege University Science and Technology /Application and Research/ Centre (Ege Üniversitesi Bilim Teknoloji Uygulama ve Araştırma Merkezi)
EDAM	Centre for Economics and Foreign Policy Studies
EİEİGM	General Directorate of Electrical Power Resources Survey and Development Administration
ETO	Ecologic Agriculture Organization Association
EU	European Union
EUROSTAT	European Union Statistical Office
EÜ	Ege University
EWEA	European Wind Energy Association
GNC	General Census
GDP	Gross Domestic Product
GNP	Gross National Product
ha	hectare (10.000 m ²)
IEA	International Energy Agency
IPA	Instrument Pre-Accession Assistance
IPARD	Instrument Pre-Accession Rural Development
İAOSB	İzmir Atatürk Organized Industrial Zone
İBB	İzmir Metropolitan Municipality
İEÜ	İzmir University of Economics
İTB	İzmir Commodity Exchange
İTOB	İzmir Chamber of Commerce Organized Industrial Zone
İYTE	İzmir Institute of Technology
İZKA	İzmir Development Agency
İZSU	İzmir General Directorate of Water and Sewerage Administration
İZTO	İzmir Chamber of Commerce
KGM	General Directorate of Highways

ABBREVIATIONS

KOSBİ	Kemalpaşa Organized Industrial Zone
LQ	Location Quotient
MEB	Ministry of National Education
NUTS	Nomenclature of Units for Territorial Statistics
NGO	Non-Governmental Organization
OECD	Organisation for Economic Cooperation and Development
OIZ	Organized Industrial Zone
PLİ	Pire Port Administration
Prov MEM	İzmir Provincial Directorate of National Education
SPA	Specially Protected Area
SBF	Ankara University, Faculty of Political Sciences
SHÇEK	Institution of Social Services and Child Protection
TCDD	Turkish State Railways
TDİ	Turkey Maritime Organization Inc.
TKB	Ministry of Agriculture and Regional Affairs
TMP	Transportation Master Plan
TPE	Turkish Patent Institute
TÜİK	Turkish Statistical Institute
TÜRÇEV	Turkish Foundation for Environmental Education
TÜSİAD	Turkish Industrialists' and Businessmen's Association
URAK	International Competitiveness Research Institute
USA	United States of America
WWTP	Wastewater Treatment Plant

Age dependency rate: This is the number of individuals within the “0-14” and “65 and over” age groups per each 100 individuals within the “15-64” age group.

Agglomeration economy: Effects that emerge with the economical activities concentrating in a certain area and define a decrease in costs are named as “agglomeration economies”.

Average household size: This term refers to the average number of people constituting a household.

Boutique hotel: This is a hotel with at least ten rooms that presents a genuine structure due to its structural characteristics, architectural design, furnishing, decoration and utilized materials, employing outstanding standards and high quality in terms of operation and services, giving customers customized services with its experienced or field-expert personnel

Charter flights: These are non-scheduled flights that do not bear the characteristics of international scheduled flights defined by the European Civil Aviation Conference in year 1952.

Chronic poverty: This is the poverty situation continuing throughout the longer part of the individuals' lifetimes, often passed on to their children and conveyed from generation to generation. Chronic poverty is not a static definition explained as having low-income but a dynamic definition that accepts poverty as a long term process that prevents the individual's fundamental abilities such as nourishment, education and health.

Concentration coefficient: This is the coefficient that allows the agglomeration of a sector within a certain region to be measured in terms of national reference.

Ecological tourism / ecotourism: This is the tourism activity that combines natural environment and tourism activity, based on the principle of acting with the motive of responsibility towards the adverse effects on environment. This is a tourism model rather more compatible with the environmental conditions especially in protected areas

without involving many facilities and infrastructure; national parks and protected areas constitute the basis of this type of tourism.

Elderly population: This term refers to the population comprising of 65 years and older ages.

Fecal coliform: This is the microorganism group that covers the group of coliforms reproducing within the range of 44-45°C and is the most significant indicator of bacterial organic pollution.

Formal education: Formal education is the education type applied regularly to individuals at a certain age group and the same level, with purpose-prepared programs under the body of a school. Formal education is the education process beginning from preschool and covering university education.

Gini coefficient: Gini coefficient is calculated through Lorenz curve and used for defining the income distribution within a community. Having a value between “0” and “1”, Gini coefficient determines the equality of income distribution within the society. Theoretically, as the coefficient increases the inequality of income distribution in the society increases and as the coefficient decreases the inequality of income distribution in the society decreases. In other words, in case the overall income is distributed totally even among the individuals of the society, the value of Gini coefficient becomes equal to “0”; and in case it is collected by a single individual, the coefficient becomes equal to “1”.

Handling: This definition covers tasks conducted on the customs-supervised goods, such as; the goods being stored without altering essential characteristics, moved, transferred from large containers to small containers, renewal or repair, aeration, sifting, mixing of containers, and similar tasks.

Herfindahl sectoral specialization index: This is the method that shows the regions' specialization and diversity levels in terms of workplace and employee numbers.

Household: This is the populace comprised of one or several people who, whether or not relatives, live within the same residence or a section of the same residence, eat from the same kitchen, do not separate incomes and expenses, and join in the service and management of the household.

Informal education: Informal education encompasses education, learning, counselling and implementation activities organized along or outside of formal education, for individuals who are either never participated or presently at any level of formal education, or individuals who got out of these levels. Teaching reading-writing, giving fundamental knowledge, developing personal and professional knowledge and skills are among the purposes of informal education.

Lorenz curve: Lorenz curve displays the relationship between the cumulative percentages of a certain unit (household, country population) and the cumulative percentages of a certain variable group (income, employment). In Lorenz curve, the straight line, which diagonally separates the income distribution graph to two pieces, presents the state of “exact equality”. Deviations from this line define the degree of inequality in income distribution. The curve approaching the exact equality line indicates the income distribution being improved within the society in question.

Median age: This is the age of the person who is found at the middle when the ages of people constituting a community are listed from the youngest to oldest. Therefore, one half of the population are older and the other half of the population are younger than this age.

Net immigration: This is the difference found between the immigration amounts to and from a certain region. In case the number of immigrants taken in is higher than the number sent, net immigration is positive; and in case the number of immigrants taken in is lower than the number sent, net immigration is negative.

Net immigration rate: This is the ratio of the net immigrating population in a settlement unit to the average

overall population of that settlement unit calculated from two consecutive censuses.

Niche market: This is the market of goods or services which has a yet unmet demand within the whole market. It especially covers a set of genuine services or goods not met by the large-scale establishments conducting serial or mass production; in this context it aims for a person-based, customized service.

Panamax: These are ships of large tonnage designed suitable in terms of width as to pass through the Panama Canal.

Particular matter: The term particular matter (PM) defines the solid particles and liquid droplets in the air.

Periodicity: This term defines the condition that in some fruit types, scarce or abundant amounts of product can be had periodically in terms of years depending on the genetic and physiological characteristics of the plant. This state of irregular product yield may also be referred to as “alternas”. Concerning periodicity, which is observed most in olive cultivation in our country, the fertility rate can vary as far as five times between a high production year and a low production year.

Population density: This is the population amount per one square kilometre.

Ro-Ro: (Roll on/Roll off) This is the term used for large merchant ships designed to carry and transport wheeled vehicles such as automobiles, trucks, trailers, lorries or wagons, and the transportation type realized in this fashion.

Rural tourism (agritourism): This is the tourism type focusing on participating with the rural life style in regions where agriculture is the dominant factor. In foreign countries this is seen especially in large farms; in agricultural sectors such as viticulture and viniculture. This may be a variant of the ecological tourism.

Schooling rate: Schooling rate shows the accessibility of

the education service at a certain education level (preschool, elementary etc.) within the population constituting the relevant age group and the society. Gross schooling rate is obtained through the total student number at the education level in question being divided by the population constituting the relevant age group (theoretical population). While net schooling rate is calculated through the number of only those at relevant age group among the overall number of students at the said education level being divided by the theoretical population.

Tourism destination: This is the area where tourism is a relatively significant activity field and economical, social and physical effects of tourism can be seen within. In other words, they are countries, regions, cities where tourism is among the fundamental economical activities.

Unemployed youth: This term refers to unemployed people within the age group of 1524.

Unemployment rate: This term refers to the ratio of unemployed population to the workforce.

Urban population: This is the population of city and district centres (centrums), within municipality borders.

Urban tourism: This is the urban-centred tourism type that focuses mainly on urban life, cultural features (such as museums, restaurants and shows) and aspects to be seen at the city (such as architecture, monuments and parks); a tourism type especially seen in Europe.

Warehouse: These are the storerooms in which the goods under customs supervision or if permitted the import goods are put.

Workforce: This is the total population formed by the employed and unemployed people.

World city: This is the title assigned to a city that is considered an important point within global economical system.

Youth unemployment rate: This term refers to the ratio of unemployed people within the 1524 years age group, to the workforce of the same age group.







I

GENERAL OVERVIEW OF THE REGION





İZMİR SITUATIONAL ANALYSIS



Enjoying a history of 8,500 years, İzmir has an important place regarding its cultural value not only regional or nationally but also internationally. One of the foremost provinces within our country in terms of contribution to world civilization, İzmir sits at a passage and conjunction point of many civilizations. Rumoured to be founded by Amazonians, strong female warriors, the city is one of the most important centres of the region and the world since the ancient times.

Being the portal of Asia Minor to the Mediterranean via Aegean Sea, İzmir houses the Temple of Artemis which is one of the world's seven wonders, and important cities such as Ephesus and Bergama that were the metropolises of the ancient ages. Contributed significantly to the philosophical world of the ancient ages, the city is the region where parchment paper had first been created which had a major effect enabling the civilization to spread and the Celcius Library of Ephesus, one of the greatest libraries of its time had been founded. Homer, author of the two most important Epics of the ancient ages, namely Iliad and Odyssey, and Heraclites, accepted as the founder of dialectic philosophy are from İzmir.

İzmir is an important harbour city not only regarding trade and philosophy but also for its place regarding religions and cultures. Having a major importance in the spreading of Christianity, İzmir houses three out of seven churches mentioned in the Bible, and the first church ever built in the name of Virgin Mary. It has been an important city for Islam to spread throughout Europe via Aegean Sea and Balkans, and had come foremost among the places that the Jewish people immigrating from Europe to Anatolia during the Middle Ages had settled. Similarly, İzmir has been a portal towards modernization since Ottoman age through the Turkish Republic.

In spite of all this advantage contributed through its geographic location and historical-cultural experience, in our current day İzmir is facing in a significantly dynamic frame, just like all other metropolises, interacting economical, social, cultural, political strong and weak points, and opportunities and threats for the city. Prior to handling these in detail and analysing the present situation of İzmir, it is necessitated to have a general overview on the province's place within the country and region, and a district-based view in local and regional scope, along with a mention on the province's global position and İzmir's competitiveness.

1.a. The Standing of İzmir within Region and Country

The study that utilized the data of year 2000 and issued in year 2003 by the Undersecretariat of State Planning Organization (DPT), namely the Socioeconomic Development Ranking of Provinces, is the first study that handled the situation of provinces in regional and national scope and detailed it in terms of socioeconomic development ranking. According to the study in question, while Aegean Region is at second place among regions regarding development, İzmir is at third place among 81 provinces.

While the gross domestic product (GDP) per capita is found to be 2,146 USD throughout Turkey calculated according to the current prices from latest data on year 2001 by Turkish Statistical Institute (TÜİK), İzmir is at 6th place within the country with a GDP of 3,215 USD. İzmir as a province has the highest share within the overall GDP produced throughout Aegean Region. According to the most actual 2001 data of TÜİK, İzmir produces approximately half of the GDP produced within the region (46.9%) by itself, followed by Manisa (13.7%) and Muğla (10.2%) (Table 1).

Table 1: Ratio of Aegean Region Provinces to Regional Overall GDP

Provinces/ Years	Contribution Margin in Regional Gross Domestic Product (%)
	2001
İzmir	46,9
Manisa	13,2
Muğla	10,2
Aydın	8,2
Denizli	7,6
Kütahya	5
Afyon	4,3
Uşak	1,9
Aegean Region	100

Reference: TÜİK Web Site,
http://www.tuik.gov.tr/PreIstatistikTablo.do?istab_id=533

According to data of year 2000, İzmir is at first place regarding the number of workplaces settled in small scale industrial sites (DPT, 2003). And according to the 2009 data of Provincial Directorate of Industry and Commerce, İzmir is the province employing the highest number of OIZs within Turkey with a total of 17 Organized Industrial Zones (OIZ) of which 2 are fully-functional, 4 partially-functional and 11 under-construction.

Whenever variables such as total bank deposits, loans and tax incomes that are important towards assessing the capital accumulation and investment trends are considered, İzmir is yet again at foremost lines.

total country bank deposits and 6.4% of total bank loans, and is at 3rd place countrywide regarding both of them (TBB, 2009).

According to year 2008 household workforce surveys, employment sectoral distribution has taken place as; 7.5% in agriculture, 31.5% in industry and 61% in services sector. Total workforce, on the other hand, has risen up to 1.17 million as of year 2008. Compared to country general, it can be observed that in İzmir, the employment share of non-agricultural sectors is continuously higher than overall countrywide averages (Table 2).

Table 2: Employment Share of Non-Agricultural Sectors in İzmir

	Employment Share of Non-Agricultural Sectors (%)	
	Turkey	İzmir
2004	66	80
2005	70,5	81,8
2006	72,7	82,5
2007	76,5	90,8
2008	76,3	92,5

Reference: TÜİK Web Site,
http://www.tuik.gov.tr/PreIstatistikTablo.do?istab_id=1237

According to year 2000 data, İzmir is at 3rd place with a share of 5.92% in total bank deposits and 6.04% in total bank loans, and regarding the total income tax and corporate tax per capita, the province is at 4th place, above country average (165 million TL) with a total amount of 191 million TL (DPT, 2003).

Meanwhile, according to the more actual data of the Banks Association of Turkey, İzmir houses 6.2% of

The reason of workforce having been employed in non-agricultural sectors at higher ratios than country general is because İzmir is a centre where the regional industrial and services sectors are concentrated upon. The fact that the ratio of the number of wage earner employees to total employment is constantly higher than country average supports this result (Table 3). This status causes the workforce within the province to employ relatively high experience and knowledge

Table 3: Ratio of Wage Earners to Total Employment in İzmir and Turkey

Ratio of Wage Earners to Total Employment (%)		
	Türkiye	İzmir
2004	50,8	63,5
2005	54,2	64,5
2006	56,5	64,9
2007	60,4	72,6
2008	61	75,7

Reference: TÜİK Web Site,
http://www.tuik.gov.tr/PreIstatistikTablo.do?istab_id=1237

compared to country average towards meeting the quality and skills necessitated by the sectors in question.

Regarding indicators related to education, İzmir is at a better position compared to countrywide status. According to data supplied by TÜİK, while the literacy ratio over age 6 has been 87.32% throughout Turkey in year 2000, it is 91.86% in İzmir. In year 2008, this ratio has increased to 91.8 throughout Turkey while it has increased up to 94.9% in İzmir. In short, İzmir is above country average regarding literate population ratio. Despite this strong status of the province however, it should not be forgotten that İzmir happens to be the 10th province within an index of provinces that achieved the highest level regarding the literacy ratio over age 6.

In regards to the ratio of higher education and above school graduates to the total population over 15 years age, İzmir comes at the 2nd place among 81 provinces with a value of 10.77% after Ankara (15.45%). While the Turkey average is at 7.9%, İstanbul follows İzmir with a value of 10.59%. Similarly, regarding the ratio of higher education and above women graduates to the total women population over 15 years age; İzmir is at second place with a value of 9.29% after Ankara (13.12%), followed by İstanbul with 9.22% while the Turkey average is 6.2%.

As of year 2007, the number of people per specialist doctor is 4,692 in İzmir. This same amount is 7,905 for Aegean Region and 56,292 for Turkey. Regarding the number of people per nurse, İzmir is at a

significantly better position with a value of 6,817 people, compared to Aegean Region (14,054) and Turkey (100,144). Similarly regarding the number of people per midwife, İzmir is at a significantly better position compared to Aegean Region (7,331) and Turkey (48,155) with its value of 2,610 individuals per midwife (TÜİK, 2008: p.87).

Considering the other indicators reflecting the income and prosperity levels, it can be seen that the values of İzmir province are generally above that of Turkey average values. According to the ABPRS and province-based motor land vehicle data of TÜİK in year 2008, the number of automobiles per 10,000 individuals is 950 throughout Turkey while this same value is 1,258 in İzmir. Likewise, the number of motor land vehicles per 10,000 individuals is approximately 1,925 throughout Turkey while it is 2,399 in İzmir.

According to year 2007 TÜİK data, average electricity consumption per capita is 2,198 in terms of kWh throughout Turkey, while this value is 2,879 in Aegean Region and 4.139 in İzmir. Likewise, the industrial electricity consumption per capita is 1,045 throughout Turkey, while this value is 1,529 for Aegean Region and 2,531 for İzmir. In residential electricity consumption per capita, İzmir has yet again a higher value of 792 kWh compared to Aegean Region (611) and Turkey (517).

According to TÜİK data for year 2006, the ratio of population given solid waste service is 81% throughout Turkey and 82% throughout Aegean Region, this value is 93% in İzmir. In regards to the ratio of population given drinking and utility water to

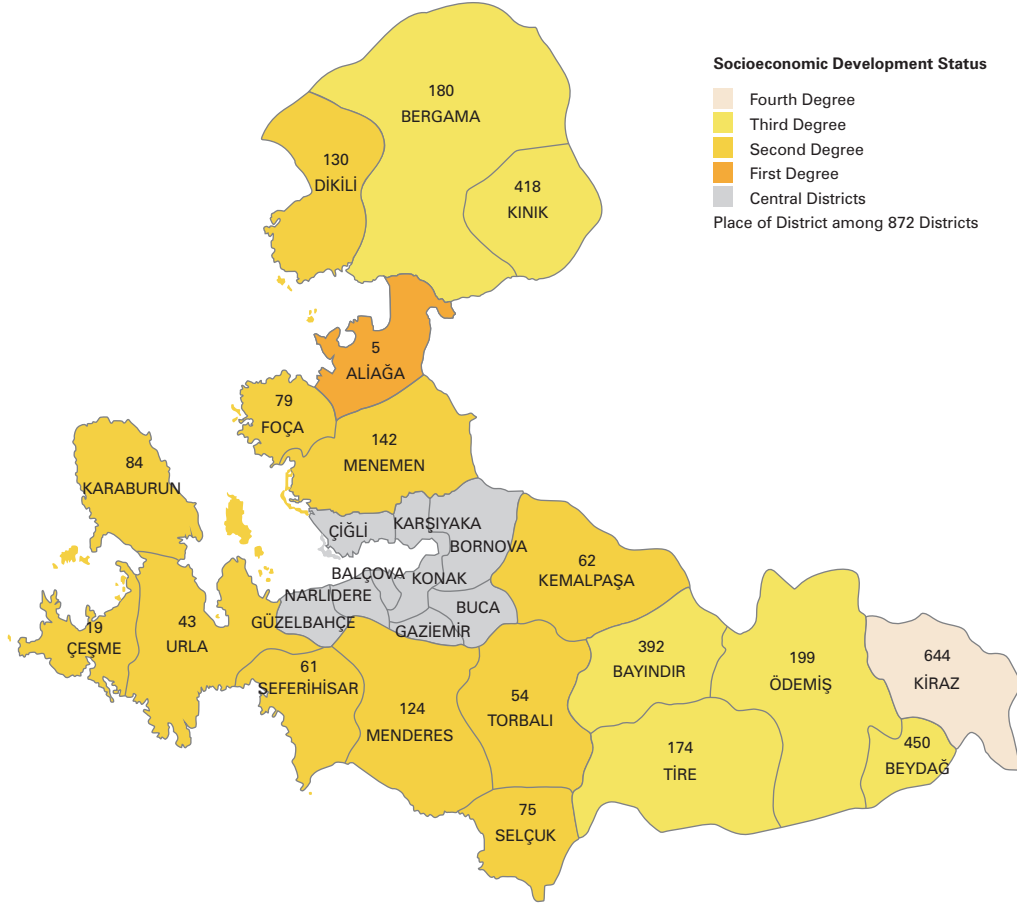


Figure 1: Districts' Socioeconomic Development Ranking
Reference: DPT, 2004

the total municipality population, İzmir is slightly behind Aegean Region and Turkey average values (98%) with a ratio of 97%. However, while the ratio of population given drinking and utility water with treatment plant to total municipality population is 49 % throughout Turkey, this value is 16% in Aegean Region and 29% in İzmir.

1.b. General Overview of İzmir Province: Socioeconomical Development Levels of Districts

According to the study named Districts Socioeconomical Development Ranking prepared by DPT in year 2004, İzmir is at a more advanced position in comparison to Turkey average regarding the development ranking of its districts. Of the 19 districts of İzmir included within the study's context, four districts with negative socioeconomic development indexes have been Bayındır, Kınık, Beydağ and Kiraz districts. Among the 872 districts

encompassed within the study, districts of İzmir at highest ranking places have been Aliaga (5), Çeşme (19) and Urla (43) districts.

The ratio of the total population of the seven districts, which have been defined as underdeveloped within the mentioned study (and are in fact situated at the southeast and northeast interior belts, far from the sea within the province) to the overall province population is 13.4%. It is observed that developed districts are settlements close to Centrum, with more convenient positions regarding transportation opportunities. Among these districts of high sectoral diversity, districts prominent in industry sector exist along with districts with high tourism potential.

1.c. Global Standing of İzmir Province

In our day, metropolitan cities collect a major portion of national economies under their bodies. According

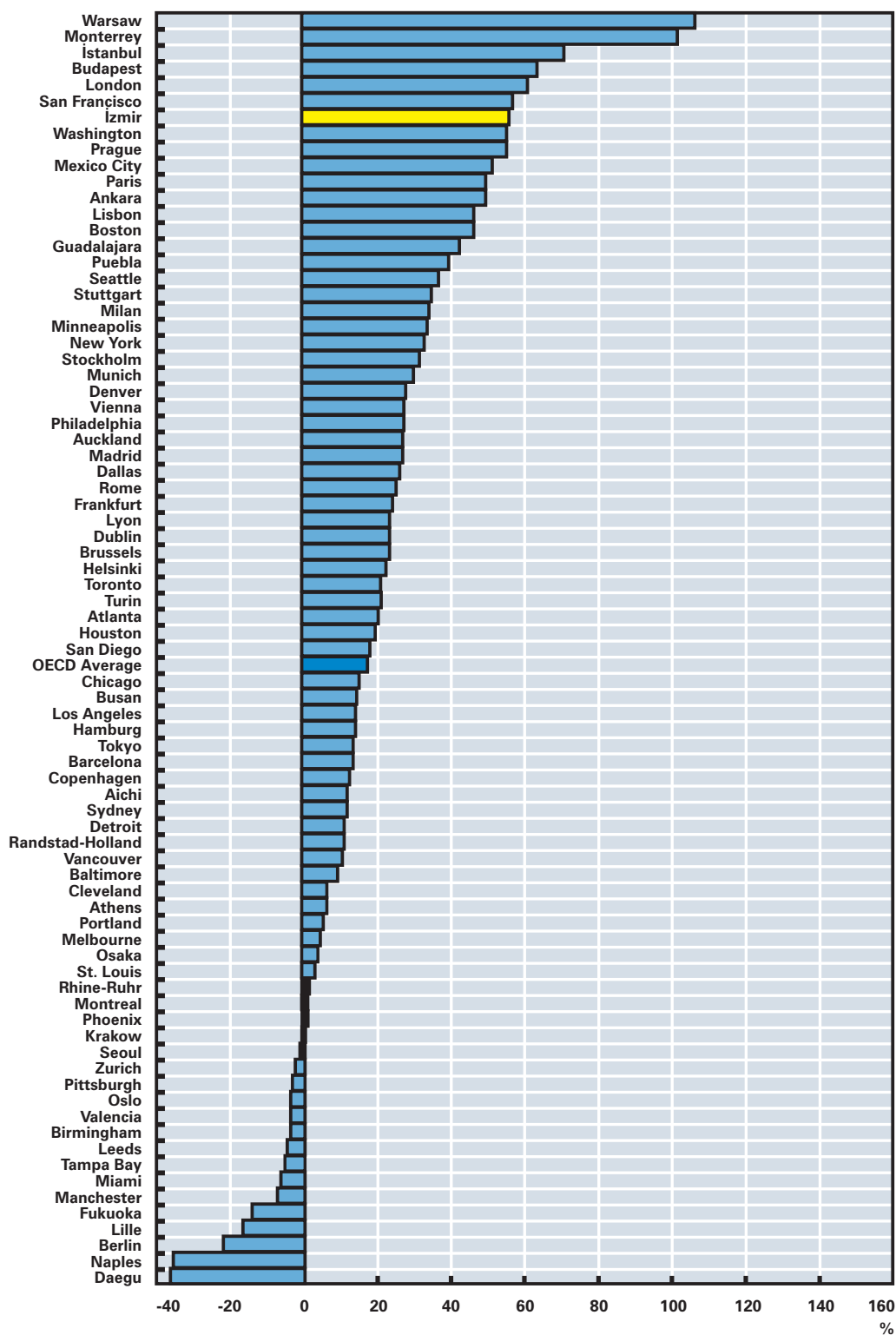


Figure 2: Ratio of Global Cities to National GDP per Capita, 2002
Reference: OECD, 2006

to the study dated 2006 of the Organization for Economic Development and Cooperation (OECD)

where the competitive provinces within global economy were studied, in most of the metropolitan

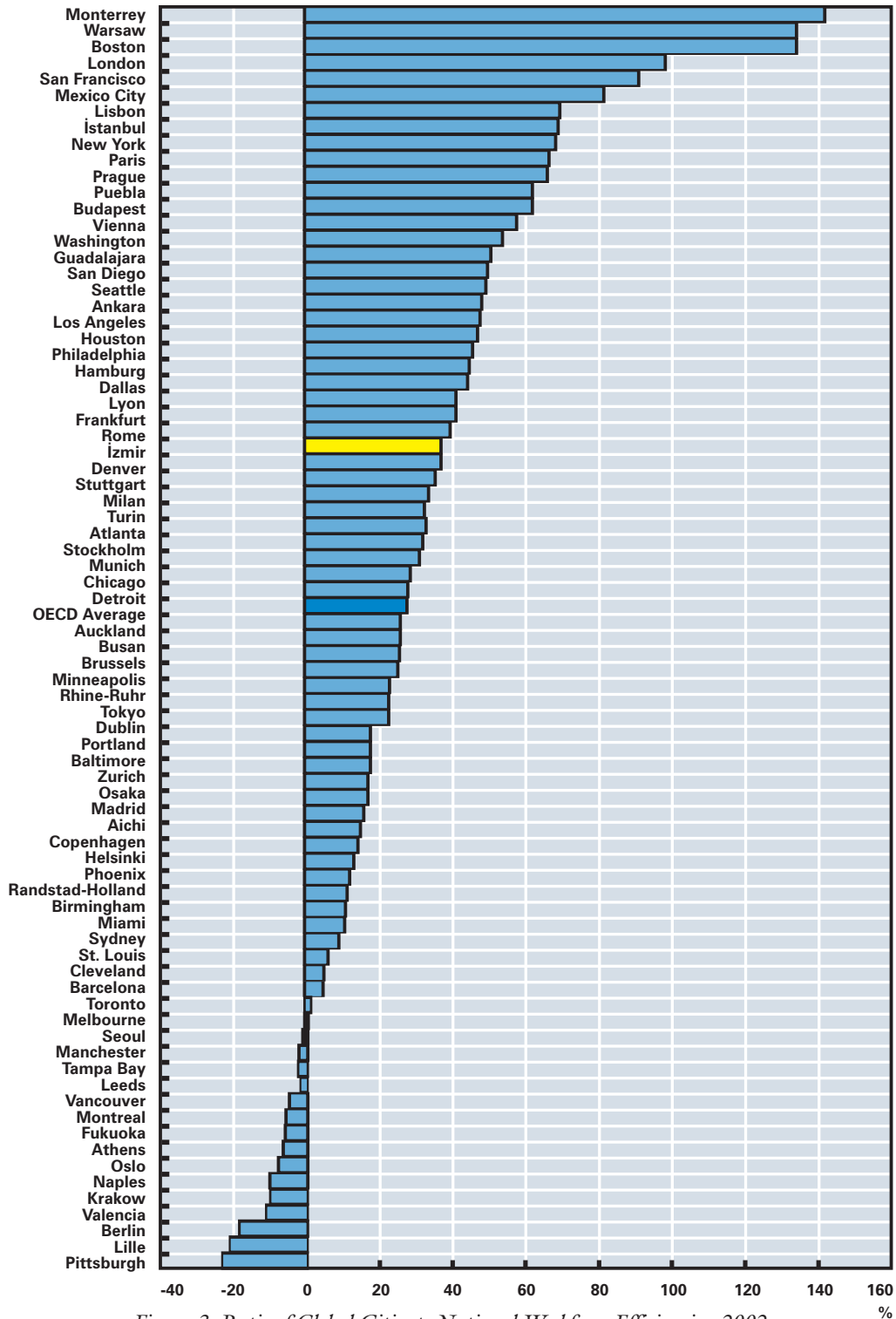


Figure 3: Ratio of Global Cities to National Workforce Efficiencies, 2002
Reference: OECD, 2006

Table 4: Turkey's Rank within International Competitiveness Ranking

Criteria	2000	2002	2005
Number of Countries Listed	59	80	117
Growth Competitiveness	40	69	66
Technology	-	54	53
Public Institutions	-	63	61
Macroeconomic Environment	-	78	87
Business Environment Competitiveness	29	54	51
Business Management Operations and Strategy	28	56	38
Quality of National Business Environment	29	55	51

Reference: DPT, 2006

regions the GDP per capita (66 out of 78 metropolitan regions) and the workforce efficiency (65 out of 78 metropolitan regions) are higher than national average. Moreover, most of these provinces have a higher growth rate than that of their own countries.

According to the OECD study in question, İzmir singlehandedly constitutes approximately 50% of the Aegean Region GDP and approximately 7% of the Turkey overall GDP. It is seen that İzmir, the sixth province in GDP per capita ranking, has an annual population increase far above the OECD average. After İstanbul and Ankara, İzmir is the third province regarding its contribution to Turkey overall GDP. Regarding GDP per capita, it seems that İzmir and İstanbul are beyond 60% of overall country value (OECD, 2006).

According to the same study; when the workforce efficiency is questioned, the national labour efficiency ratio of İzmir province is at 25% while the same value is at 50% in İstanbul.

In conclusion, İzmir bears a potential in human and physical capital opportunities, equipment, building stock and infrastructure opportunities, better presentation of transportation and telecommunication opportunities and constituting resource alternatives, due to the agglomeration economy just like other global cities. Still, İzmir yet again like other global cities has strong, weak points and opportunities and threats facing the province, tracing back socioeconomically at local,

regional, national and international scales.

1.d. Turkey and İzmir in Terms of Competitiveness

Specialization and technology development competence have become important aspects of competitive power within international markets with the globalisation and rapid technological advancement period throughout the world. In this period where the competition advantage aspects rapidly change, information and communication technologies have caused radical changes to business methods. Knowledge-intensive and high added value product and service production have become prominent regarding economic development, especially the education level and necessary skills employment of the workforce have gained importance (DPT, 2006).

The 9th Development Plan that presents the economic, social and cultural transformations Turkey shall realize with a holistic approach in this period where competition gets intensified, uncertainties get increased and globalisation dominates every field with deepening opportunities and risks, encompasses the era between years 2007-2013. The first among the five strategic goals defined in this plan was determined to be 'Increasing Competitiveness'.

The index named "growth competitiveness index" by the World Economic Forum defines the growth potential of a country for the next 5-10 years. In the 2005 year annual growth competitiveness index ranking, the first place is occupied by Finland which is

¹ These five strategic goals have been defined as; (i) increasing competitiveness; (ii) increasing employment, (iii) strengthening human development and social solidarity, (iv) realizing regional development, (v) increasing quality and effectiveness in public sector services.

followed by the USA. Among all 177 countries listed, Turkey is at 66th rank.

Competitiveness constitutes the focus point of the year 2010 goal of 'becoming the most competitive, dynamic and knowledge-based economy throughout the world' decreed by the European Union (EU) in the Lisbon Summit held at March 2000. Efficient utilization of local resources by regional economies in order to compete at national and global markets and to adapt in compliance to changes in these markets increase regional competitiveness (Huavari et al, 2001).

Regarding our country, regional analysis of competitiveness is a relatively new subject. Competitiveness-based regional analyses are required from both public sector institutions and private sector and non-governmental organizations (NGO). Some predecessor studies in this regard present important information regarding the competitiveness of İzmir. In the study named A Competitiveness Index for Turkey prepared by the Centre for Economics and Foreign Policy Studies (EDAM), competitive dynamics have been researched under guidance of 6 sub-indexes constituting province-based overall competitiveness index and nearly 50 variables. The sub-indexes constituting basis for competitiveness index have been listed as, economical activity and dynamism, labour market, creative capital, human capital, physical infrastructure and social capital; resulting in Ankara being designated as the most competitive province, followed by İstanbul and İzmir respectively. Under physical infrastructure sub-index, İzmir is at second place.

Another study investigating the subject of province-based competitiveness is the Interprovincial Competitiveness Index² issued by the International Competitiveness Research Institute (URAK). This study is based on 4 main variables human capital and life quality; branding ability and innovation; commerce ability and production potential; accessibility and a total of 39 sub-variables under these four. According to this study; five most competitive provinces of Turkey in regards to their total index values are found to be İstanbul (83,53), Ankara (48,20), İzmir (43,20), Bursa (36,22) and Kocaeli (33,32) respectively.

When the four sub-indexes used for defining the total index in question are considered; İzmir has an index

value of 38.33 and is at second place behind İstanbul (88.94) regarding Commerce Ability and Production Potential sub-index. However, it strikes attention that while at second place at said sub-index, İzmir has approximately half of the value that is employed by İstanbul. Despite the strong points such as high accessibility and long-established trade history, considering conditions adversely affecting competitiveness - such as the province being at the first place regarding industrial electricity consumption- it can be said that İzmir remains weak towards utilizing its commerce ability and production potential.

Under Accessibility sub-index, İzmir is yet again at second place with an index value of 78.44 after İstanbul (85.18). Due to the contribution to competitiveness by the province's convenient land, sea, air transportation means and geographic location, a high value has been obtained in the sub-index in question.

Under Human Capital and Life Quality sub-index, İzmir is at fourth place with an index value of 44.34 preceded by Ankara (67,05), İstanbul (60,01) and Eskişehir (52,13). For defining the sub-index value in question, variables such as number of individuals with higher education, number of students trained in technical education, ratio of getting into university, number of hospital beds per capita, number of automobiles per capita, bank deposits per capita, amount of crimes committed within province per capita have been taken into account. İzmir being at 27th place within the ranking on hospital beds per capita, 31st place within the ranking on student selection examination (for university) and 12th place within the ranking of instructors and educators per capita are factors weakening the province's competitiveness.

Under the Branding Ability and Innovation sub-index, İstanbul yet again takes the lead (100) while İzmir could only rank at ninth place with an index value of 11.67, following Denizli (13,09) and Manisa (12,71). It strikes attention that the province, despite ranking at second place regarding Commerce Ability and Production Potential and Accessibility sub-indexes and at fourth place regarding Human Capital and Life Quality sub-index, can rank only at ninth place regarding Branding Ability and Innovation sub-index. Effective policies should be put into action regarding the subjects of branding and innovation in order to strengthen competitiveness of İzmir.

² For detailed information regarding this study see: <http://www.urak.org>





2

SOCIAL STRUCTURE





İZMİR SITUATIONAL ANALYSIS



When compared to country average with respect to the main titles of social structure, İzmir province is one of the relatively advanced provinces on both provinces and Nomenclature of Units for Territorial Statistics (NUTS) 2nd Grade Regions bases. Regarding socioeconomical development, İzmir has been determined to be the third most developed province among 81 provinces (DPT, 2003). Also in the Interprovincial Competitiveness Index prepared by URAK for the purpose of determining the competitiveness levels of 81 provinces, İzmir province has been defined to be the third most competitive province in Turkey following İstanbul and Ankara (URAK, 2009). Under Human Capital and Life Quality Index, which is one of the four sub-indexes utilized for defining the total overall index in this study, İzmir came at fourth place following Ankara, İstanbul and Eskişehir respectively. However, in spite of this high-development picture at national level, it cannot be denied that the province of İzmir is face to face with serious problems regarding social development.

2.a. Population Structure

The province with a population determined to be 531,579, İzmir has come at second place following İstanbul regarding total population in year 1927; while according to the results of Address Based Population Registration System (ABPRS) in year 2008 the province population increased to 3,795,978 and come at third place among 81 provinces, following İstanbul and Ankara.

2.a.1. Intensifying Population

The first point striking attention regarding the population structure of İzmir is its considerably high population density. The population density of İzmir is high not only in regional comparisons but also in

national and international comparisons. According to the year 2000 General Census (GC) data, the population density of Turkey average has been defined to be 88 while this amount has been 99 for Aegean Region and 281 for İzmir province. In this regard, İzmir ranked at third place among 81 provinces regarding population density, following the two most densely populated provinces of İstanbul (1.928) and Kocaeli (334).

According to year 2007 ABPRS data, population density happened to be 92 throughout Turkey and 103 for Aegean Region while this value increased to 311 in İzmir province (TÜİK, 2008: p.3). When the population data of the same year have been compared regarding NUTS Level 2 Regions; it can be observed that İzmir, with its population of 311 individuals per square kilometre, is the second most densely populated region after İstanbul (2,420), followed by Ankara (182) and TR42 Region³ (151).

According to year 2008 ABPRS data, population density have increased at all 3 scales; reaching 93 throughout Turkey, 105 for Aegean Region and 316 for İzmir. Therefore it may be said that population density is on the rise throughout our country on every scale while İzmir is one of the provinces and regions where the population lives most densely in Turkey on both provinces and NUTS bases.

Among 315 NUTS Level 2 regions within the EU, there are 197 Level 2 regions of which population density data for year 2006 have been issued. According to the data of EU Statistical Office (EUROSTAT), İzmir is ranked at 32nd place among these 197 Level 2 regions regarding population density and thus is defined within the most densely populated regions segment. In the light of all these findings, it may be said that İzmir has a significantly high population density at all scales,

³ According to NUTS classification; İstanbul province has been designated as TR10, Ankara province as TR51, and İzmir province as TR31 among the Level 2 regions. Kocaeli, Sakarya, Düzce, Bolu, Yalova provinces on the other hand have been designated to all together constitute the TR42 region. For detailed information regarding NUTS: <http://www.dpt.gov.tr/bgyu/biid/ibbs.html>

be it regional, national or international. This situation increases the necessity for extensive policies especially in issues such as healthy urbanization, social health, transportation, contingency and disaster management.

2.a.2. Increasing Population

The second point striking attention regarding İzmir's population structure is that its population increase rate has happened to be above Turkey average since a long time ago. According to the GC data issued by TÜİK valid for the last 80 years; population increase rate of İzmir has stood below the population increase rate of Turkey general in the period between 1927-1940 but after 1945 this situation has become reversed. Although between years 1940-1945 the population increase rate has dropped down to minimum level in both Turkey and İzmir (10.59% and 10.19 respectively) as a natural result of the war period, this process has become reversed after 1945, resulting in a higher population increase rate for both İzmir and Turkey. The population of İzmir has increased more rapidly compared to Turkey from this date onwards. In other words, while Turkey's population has increased approximately by 5 times in the last 82 years, İzmir's population has increased approximately by 7 times. As shown in Figure 4, the ratio of İzmir's population to the total overall population has exceeded the level of 4% especially from the early

1.23% for Turkey (OECD, 2008). Among EU27 countries, only Spain, Ireland and Greek Administration of Southern Cyprus have population increase rates higher than Turkey (ISO, 2008: p.11). Similarly, while the average population increase rate of OECD countries is found to be 0.7% for 2005-2006 period, this value has been higher in Turkey (1.3%) (OECD, 2008). From this point forth, it can be observed that İzmir is ranked at a high level regarding its population increase rate not only at national but also at international scale. This situation brings into attention the conditions and policies in parallel to the high population density remarked at the previous sub-title.

2.a.3. Urbanizing Population

The third important point related to the population structure of İzmir is that the urban population ratio is significantly high compared to most provinces and regions. While the urban population ratio throughout Turkey was at a level of 64.9% as of year 2000, this value has been found out to be 81.07% for İzmir. The urban population ratio has increased to 70.48% throughout Turkey as of year 2007 while in İzmir this increase has happened to result in a value of 84.91% (TÜİK, 2008). According to year 2008 ABPRS data, Turkey overall urban population ratio has reached 75% while it increased up to 90.89% for İzmir. With its significantly

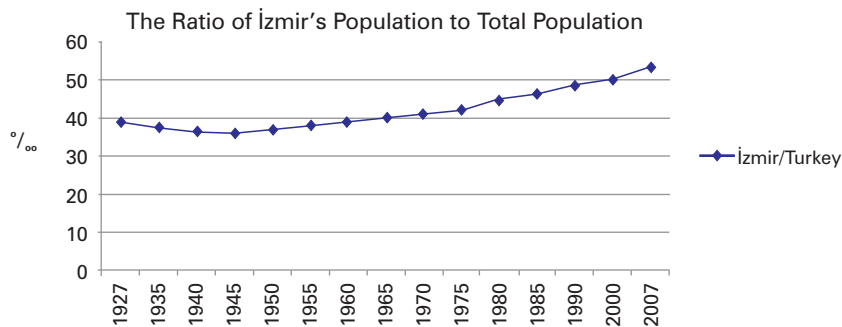


Figure 4: The Ratio of İzmir's Population to Total Population by Years

1970s onward, and this ratio has exceeded the level of 5% when nearing the 2000s.

While the population increase rate has been defined as 0.33% for EU-27 average according to 2007 data, this value has happened to be 0.45% for EU-15 average and

higher population density, population increase rate and urban population values compared to Turkey average, the necessity for policies in issues such as healthy urbanization, social health, transportation, contingency and disaster management is obviously on the rise. However, in order to fully understand this characteristic

in İzmir's population structure, data such as median age, elderly population ratio, fertility rate and immigration that triggers the characteristic should also be taken into consideration.

2.a.4. Changing Family Structure

In data related to the changing family structure too, the population structure of İzmir displays distinct differences from countrywide status. According to year 2000 GC data, while the average household size is 4.5 individuals countrywide, this ratio is 3.81 for Aegean Region and 3.58 in İzmir. According to 2007 ABPRS data, average household size has decreased at all three scales. In light of these data, the average household size in İzmir province (3.25) is lower than both Aegean Region (3.32) and Turkey (3.86) averages. In other words, the population in İzmir now dwells in residences with lower household values compared to country and region averages.

Although the average household size data reflecting a gradually diminishing family structure for İzmir are below regional and national averages in all districts, it is observed in contrary to the common belief this value happened to drop the most to a province-wide minimum not at the central districts but rather at Karaburun, a western district among the districts far from Centrum. Following Karaburun, this value of average household size has decreased most in northern axis districts of Bergama and Dikili, and in southern axis districts of Bayındır, Tire, Ödemiş and Beydağ (TÜİK, 2008: s.39). This situation may be explained with the young population in these districts immigrating to Centrum and other districts for employment purposes due to the dominant agricultural socioeconomic infrastructure. The household size being lower at these mentioned districts necessitates the policies towards social services and integration for social segments such as the elderly and disabled people, who are most adversely affected by such a situation, to be strengthened and universalized not only within metropolitan municipality borders but also in these districts.

2.a.5. Aging Population

While the elderly population ratio in our country is at 5.6% as of 2000, this value is expected to increase up to

7.1% in year 2010 (Özkan et al, 2006: p.199). Considering this value will reach 17.6% in year 2050, policy necessities related to aging may be understood more clearly (DPT, 2007). This increase in the aging of population observed in every scale from global down to national appears to be significantly deeper in İzmir compared to countrywide average. According to ABPRS 2007 data, elderly population ratio is at a level of 7% for Turkey, 8.75% for Aegean Region and 8.16% for İzmir. And according to 2008 ABPRS data, this ratio is found out to be 6.84% for Turkey, 8.7% for Aegean Region and 8.05% for İzmir.

Due to the decrease experienced in the fertility rate from 6.9 children to 2.27 children and the increase in the expected lifespan from 43.6 years to 70.4 years in the last 50 years, the population structure within the country has changed (DPT, 2008: p.6). While the median age value of Turkey was 24.83 as of 2000, this value has been defined to be 28.34 for Aegean Region and 28.77 for the province of İzmir. Examining the 2008 ABPRS results, it is observed that İzmir province is ranked higher in median age value with 32.4 compared to Aegean Region (32.2) and Turkey (28.5) averages. In other words, the median age value of İzmir is slightly higher than that of Aegean Region and 4 ages higher than that of Turkey according to 2000 and later population data.

When the median age values are examined based on districts, the highest values are reached at northern axis districts of Bergama, Dikili, southern axis districts of Bayındır, Tire, Ödemiş, Beydağ and at Karaburun more so than the readily expected districts that are within metropolitan municipality borders (TÜİK, 2008: p.38). The reason of that could be explained with the young population immigrating to Centrum (city/provincial centre) and other provinces to utilize employment opportunities, and the employment opportunities at the districts near Centrum attracting an outside regional and national scale emigration.

Factors such as the increase in elderly population and alteration of family structure that are observed in our country increases significance of bringing services to elderly population segments (DPT, 2006: p.43). Considering more and more elderly people dwell together with constantly diminishing household, it

should be appropriate to investigate the capacities of social services and relevant institutions related to lonely living elderly people, disabled people and elderly people with no social security. According to the data supplied by the Institution of Social Services and Child Protection (SHÇEK), there are a total of three nursing homes of SHÇEK in Konak, Bornova and Buca districts of İzmir. In addition to this, there are two nursing homes in Narlıdere and Karşıyaka that are managed by Retirement Fund and İzmir Metropolitan Municipality (İBB) respectively, and two more nursing homes only in Ödemiş and Selçuk that are managed by municipalities but lack special care units.

Total capacity of these public sector based nursing homes, with the summation of 1,424 normal and 537 special care capacities, is 1,961. Meanwhile, 31 private nursing homes, which are managed by institutions such as associations, foundations or private companies while supervised by SHÇEK and housed exclusively at districts within metropolitan municipality borders except two of them of which the one in Tire is managed by a foundation and the one in Çeşme is managed by a private enterprise, have a total capacity of 1,279, with the summation of 961 normal and 318 special care capacities. Calculating the entire public and private sector nursing home capacity together, we reach a total number of 39 nursing homes in İzmir and a total capacity of 3,240, with the summation of 2,385 normal and 1,173 special care capacities.

Considering the total number of elderly population in İzmir reaching 305,631 according to 2008 ABPRS data, it becomes evident that the social service and care institutions aimed towards elderly population are considerably insufficient. According to a satisfaction survey conducted by TÜİK at two nursing homes that are managed by SHÇEK in İzmir, there are no computer room, study or sports rooms in both of these nursing homes which are also the biggest nursing homes within the province (TÜİK, 2006a: p.47). Improvements related to this issue have later been put into the agenda of the institution.

In light of these data, it is evident that the social service institutions towards elderly population in İzmir should be strengthened regarding capacity, alternative care models such as homecare should be universalized, and social integration policies towards elderly population should be improved in quality and quantity. Moreover, although the median age value is higher at the far out districts on northern and southern axes and these districts reflect the lowest household size values, almost all social service and care institutions are situated within metropolitan municipality borders. Therefore, it is crucial to develop the institutions and services related to elderly people in aspects such as quality, quantity, variety and accessibility especially at these far districts where average age is higher and the population dwells in environments with smaller households.

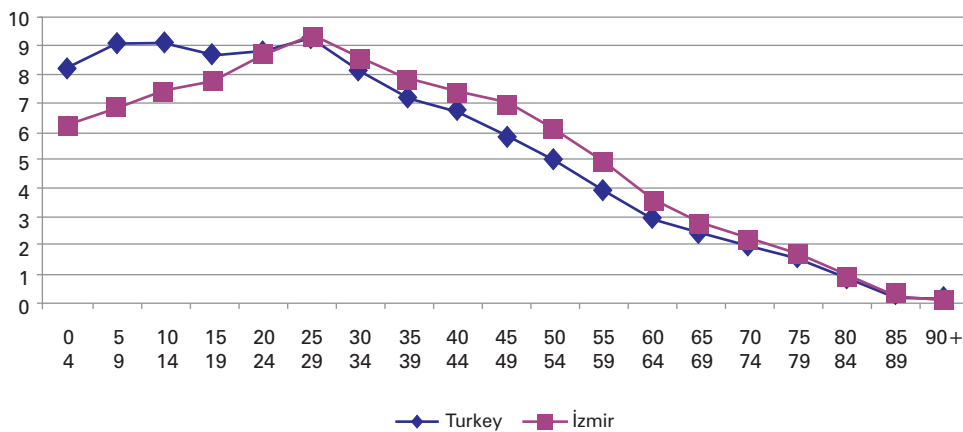


Figure 5: Ratios of Different Age Groups to Overall İzmir and Country Populations
Reference: 2007 ABPRS Data, TÜİK

2.a.6. Young Population

As may be seen from Figure 5, there are some distinct differences in the ratios of different age groups in İzmir and Turkey to the populations of the province and country, according to 2007 ABPRS data. Especially, the ratio of the 0-14 years age population, which essentially constitutes child population, to İzmir overall population is lower than the ratio of the same age group throughout Turkey to the overall country population. According to the data, these values range nearby for young population (15-35 years age) while the İzmir ratio generally exceeds that of the countrywide population for middle aged (35-65) and elderly (65 and over) population groups.

However, there is still a significant amount of population falling within child and young age groups in İzmir just like throughout the country. According to 2008 ABPRS data, the total population of the 0-14 age group is 778,281 and that of 15-29 age group is 958,648 in İzmir. It is conceivable that significant opportunities towards social development can be set in motion by supporting this young population potential of İzmir with the educative capabilities of the province. For a population segment with such large numbers, policies towards social integration must be developed under the fundamental titles such as employment, culture, civil society with education coming foremost among them. Rendering the young population to opportunity, a strong point rather than a weakness or threat, is only possible through the success of the mentioned policies that are to be brought to this segment.

2.a.7. Immigrant Population

According to 2000 GC data, the fertility rate is 2.53 throughout Turkey while the same value is at a level of 2.04 for Aegean Region and 1.75 for İzmir. From here it may be seen that the fertility rate of İzmir is significantly lower than that of Turkey. Therefore, the high population increase rate experienced in İzmir may be explained mostly through the phenomenon of immigration. Caused by regional differences while by happening also causing deeper regional differences, the phenomenon of immigration is at really serious levels in our country. Between years 1995-2000, the number of people changing their living spaces is around seven

million and 72% of these individuals are changing the province they live in (TÜSİAD, 2008: p.83).

Aegean Region and İzmir province come foremost among regions and provinces receiving immigrants. The three provinces receiving the most immigration have been İstanbul, Ankara and İzmir respectively within the period of 1975-2000 (DİE, 2000: p.11). According to the ranking of Level 1 Statistical Territories receiving the highest number of immigrants within 1995-2000 period regarding net immigration rate, Aegean Region follows the leading territories of İstanbul Region and Western Marmara Region. Regarding the net immigration rates of provinces within 1995-2000 period, İzmir ranks at the seventh place among all 81 provinces (DPT, 2008).

According to the data of TÜİK, İzmir is the fourth province with highest immigration regarding net immigration during the period of 2007-2008, with a value of 27.2 thousand individuals; following Antalya (36.2 thousand individuals), Bursa (35.6 thousand individuals) and Ankara (30.6 thousand individuals). Meanwhile, regarding net immigration rate, the province is at 11th place with a value of 7.2 per mille following provinces such as Yalova (52.58 per mille), Tekirdağ (33.19 per mille) and Antalya (19.68 per mille) that share the first three ranks in this nomenclature.

According to these data, 5.1% of all immigrants of 2007-2008 period within Turkey immigrate to İzmir. Examining the flow direction of this extensive immigration, we see that Aegean Region is an attraction centre for the population dwelling in all other regions. It is observed that Aegean Region have received 16.26% of the overall immigrants -received within 1995-2000 period- from Southeast Anatolia Region, and 14.92% from Mideast Anatolia and Northeast Anatolia territories (DPT, 2008: p.32).

According to TÜİK data, within 2007-2008 period İzmir has attracted the most immigration from Manisa (10%), İstanbul (9%), Ankara and Mardin (5%), Konya and Aydın (4%) provinces. According to 2007 ABPRS data, only 45% of the province population is registered (as in registered province) in İzmir. Considering the population of those who are registered

in other provinces while dwelling in İzmir, and the ratio of this population to İzmir population; we see that Manisa comes foremost (173,037 individuals, 4.63%) followed by Erzurum (117,086 individuals, 3.13%) and Mardin (113,211 individuals, 3.03%) (TÜİK, 2008: p.5859). As displayed by these data, İzmir does not attract immigration only from its neighbouring area but from countrywide scale. In other words, İzmir is an attraction centre regarding immigration phenomenon both regionally and nationally.

Examining the reasons to immigration of the population immigrated to İzmir within the 1995-2000 period; immigration dependant on an individual from household comes foremost with a ratio of 26.13%, followed by employment expectation with 23.02% (DPT, 2008: p.58). Considering that within the 2007-2008 period the youth within 20-24 years age group were the most densely immigrating population within Turkey according to TÜİK data, the strong connection between immigration and employment/income expectancy becomes even more conspicuous. Likely regarding the age groups immigrating to İzmir within 2007-2008 period, the abovementioned 20-24 years age group comes foremost. However, it is not sufficient here to see the immigration phenomenon in İzmir only as the population's change of location between provinces. The inter-district (within province) immigration is also at a considerable level in Turkey, with a rate equal to half of the interprovincial immigration/emigration phenomenon (TÜSİAD, 2008: p.83).

When the GC data for 1990 and 2000 years were compared, it has been seen that the population has decreased in İzmir only at Kınık and Beydağ districts. According to 2000 G and 2007 ABPRS data on the other hand, Bayındır, Bergama, Çeşme, Dikili, Foça, Karaburun, Menderes, Ödemiş, Seferihisar and Tire districts have been added to these two districts having decreased population. The decrease observed especially in districts such as Bayındır, Bergama, Beydağ, Kınık, Menderes -aside from the seasonal population movements in districts with dense summer tourism and summer dwellings- happens in result of especially the young unemployed population immigrating to the neighbouring provinces or districts due to the agriculture-based economy. Diversifying the economy,

creating new employment opportunities and increasing the qualification of the young workforce within the region in order to slow down the emigration in these districts and strengthening the integration of the young population with local economy shall result in considerably high added value regarding social development.

2.b. Education

Accessible quality education is without doubt one of the most fundamental means to development. Aside from being a human right, education is one of the most prioritized means towards the fundamental purposes such as realization of sustainable development and strengthening of social integrity. However, because increasing accessibility to education is not sufficient in itself towards making this tool effective, the quality of the supplied education should be reviewed as much as its accessibility. İzmir province comes at the 5th rank regarding the development grade of the education sector among 81 provinces following Ankara, İstanbul, Eskişehir and Yalova respectively, and at 3rd rank after Ankara and İstanbul regions when the same ranking is realized according to Level 2 territories (DPT, 2003). However, despite this relatively advanced position countrywide, it cannot be undermined that the province of İzmir is face to face with significant problems regarding education in both accessibility and quality aspects.

2.b.1. Formal Education

2.b.1.a. Preschool Education

Preschool education is crucial to enable the cognitive, affective and psychomotor skills of children at the time they attend elementary education to be rendered as independent as possible from the socioeconomical and education status of the family and the society they live in (ERG, 2008: p.48). According to the data of İzmir Provincial Directorate of National Education (Prov MEM), a total of 690 public nursery classes exist in İzmir as of 2008-2009 years, within the bodies of various education institutions which are mostly public and private elementary schools. Adding to this value the private nursery classes (52), private kindergartens (154),

independent public kindergartens (27) and kindergartens under SHÇEK (49), we get a total number of 972 institutions supplying preschool education.

During the 2007-2008 period an average of 31 students per school were housed at preschool education throughout Turkey while this ratio was 27 for Aegean Region and 32 for İzmir (TÜİK, 2008: p.93). According to Prov MEM data, 21.62 students per teacher and 20.39 students per classroom exist at preschool education in İzmir for the 2008-2009 education period. However, in order to clearly observe the universality of education service in preschool education just like any level of formal education, schooling ratios within society should be examined.

According to Prov MEM and Ministry of National Education (MEB) data, the net schooling ratio acquired in preschool education for the 4-5 years age group within 2008-2009 education period is at a level of 33.24% in İzmir and 32.11% throughout Turkey. For the 35 years age group this schooling ratio decreases even more both in İzmir (23.47%) and in Turkey (22.53%). Considering these data, it may be mentioned that İzmir reflects a picture similar to the country average in both number of students per school-teacher-classroom and schooling ratio, while still in need of advancement. According to another study conducted with 2007 data regarding the schooling ratio for preschool education of 4-6 years age group, İzmir ranked among 81 provinces within the midlevel provinces group having 25-40% schooling ratio, staying behind the 21 provinces that met a schooling ratio higher than 40% (ERG, 2008: p.48).

The necessity for advancement and improvement in this field is even more clear when we look at the international picture. Considering the actual global trends towards heeding the added value of preschool education, the picture in our country is seen significantly weak. According to year 2004 data, while the schooling ratio in preschool education for 3-6 years age period is approximately 68% in Peru, 78% in Bulgaria, and approximately 100% in France and Italy, this value is approximately around 28% in Turkey (ERG, 2008: p.49). Although the schooling rate of preschool education for 4-6 years age group has been discovered to

be around 27% within 2007-2008 period throughout Turkey, this value decreases down to approximately 18% for the 3-6 years age group (ERG, 2008: p.47).

On the other hand, according to another global scale study conducted in year 2006, Turkey with a preschool education schooling ratio of 14% is significantly behind countries such as Albania (app. 50%), Greece (app. 68%) and Rumania (app. 72%) and at the last place among all European countries (UNESCO, 2008: p.53). Therefore, although the position of İzmir regarding preschool education at national scale is at middle levels, evaluations and policies related to this issue should be developed by taking the significantly backwards position at international scale into careful consideration.

2.b.1.b. Elementary Education

According to Prov MEM data, the number of schools giving elementary education service in İzmir happened to be a total of 969 with the combination of 911 public elementary schools and 58 private elementary schools within the 2008-2009 education year. 315 mobile education schools and 23 non-functional schools have not been added to this number. Yet again according to MEB and Prov MEM data, 18,770 teachers provide educational services in public and 1,752 in private elementary schools to a total of 20,522 teachers in İzmir for the 2008-2009 education year. These schools and teachers service a total of 438,867 elementary education students covering 422,439 students in public and 16,428 in private school students. Adding to these data a total of 22,395 students being educated via distance learning (or distance education) in open elementary schools, an overall number of 461,262 elementary education students is reached in İzmir for the 2008-2009 education period.

According to a study conducted regarding the 2007-2008 period, İzmir is found out to be included within the midlevel provinces group that covers a 'number of elementary students per teacher' value of 21-39 students, staying behind the 44 provinces that provide elementary education with a value of less than 20 students per teacher (ERG, 2008: p.55). According to TÜİK data, the number of students per elementary education teacher has been found out to be 20 in İzmir and 23 throughout Turkey for 2008-2009 period. In the

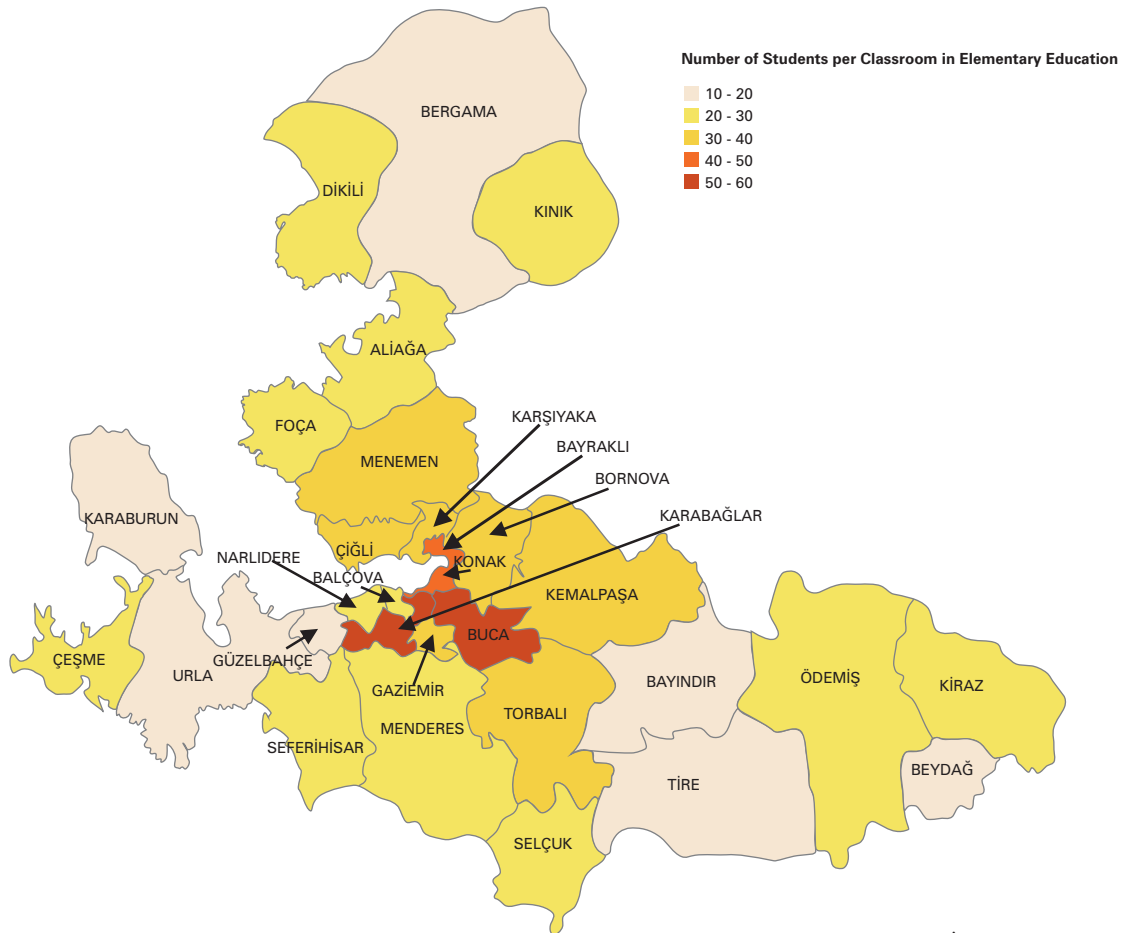


Figure 6: The Number of Elementary Education Students per Classroom in Districts of İzmir for 2008-2009 Education Year

same year, while the number of students per classroom in elementary education was 32 throughout Turkey, this value has increased to 33 in İzmir. Regarding net schooling ratio, the province of İzmir has a better status than that of Aegean Region (98.1%) and Turkey (96.49%) with a value of 99.22%.

According to Prov MEM data, while the number of students per teacher has been 22.5 for the public elementary schools, this value has been found out as around 9.3 for private schools during 2008-2009 period in İzmir. During the same period, the number of students per classroom has been around 37.6 in public elementary schools while it is 14.9 in private schools. In other words, the number of students per teacher in public elementary schools of İzmir has happened to be slightly higher than twice the same value in private elementary schools, while the number of students per classroom has been approximately 2.5 times the same value in private elementary schools for 2008-2009 education period. It should not be disregarded that this situation causes serious unfavourable problems

regarding equal opportunities in education. İzmir has reached a better level compared to country average regarding number of students per teacher and net schooling ratios in elementary education. However, the province is at a backwards condition compared to Aegean Region and Turkey regarding the number of students per school and a backwards condition compared to Turkey average regarding the number of students per classroom. As may be seen in Figure 6, the data related to the number of elementary education students per classroom differ significantly from district to district throughout İzmir. It is observed that with Buca and Karabağlar districts coming foremost while followed by Bayraklı and Konak districts, the number of students per classroom is considerably high in certain districts. Therefore, local scale developments should be aimed at the abovementioned districts towards improving the aspect that is the number of students per classroom, which is essentially one of the fundamental aspects defining the quality of education accessibility.

2.b.1.c. Secondary Education

According to Prov MEM data, 154 public general high schools and an additional 43 private high schools exist within the 2008-2009 period for a total of 197 general purpose high schools in İzmir. These high schools function with a total of 6,375 teachers of whom 5,259 are in public and 1,116 in private high schools. Regarding the number of students; a total of 97,908 students, of whom 91,352 are in public and 6,556 in private high schools, are given education. When the sum of general high schools and vocational high schools are considered on the other hand, a total of 443 schools, 11,453 teachers and 173,554 students are reached in İzmir for the 2008-2009 education year.

Within 2007-2008 period, taking only the general high schools into calculation we reach a Turkey average of

517 for the number of secondary education students per school while this value is 482 in Aegean Region and 578 in İzmir. Within the same period, the number of students per teacher in general high schools is 19 throughout Turkey, and 16 in Aegean Region and İzmir (TÜİK, 2008: p.93).

While the number of students per teacher is at an average of 17.37 in public high schools, this same value drops down to 5.87 in private high schools. In other words, the number of students per teacher in the public high schools of İzmir is approximately 3 times that of private high schools. It may be said that this situation brings along an unfavourable picture regarding equal opportunity in education.

According to TÜİK data, the number of students per teacher within the sum of general high schools and

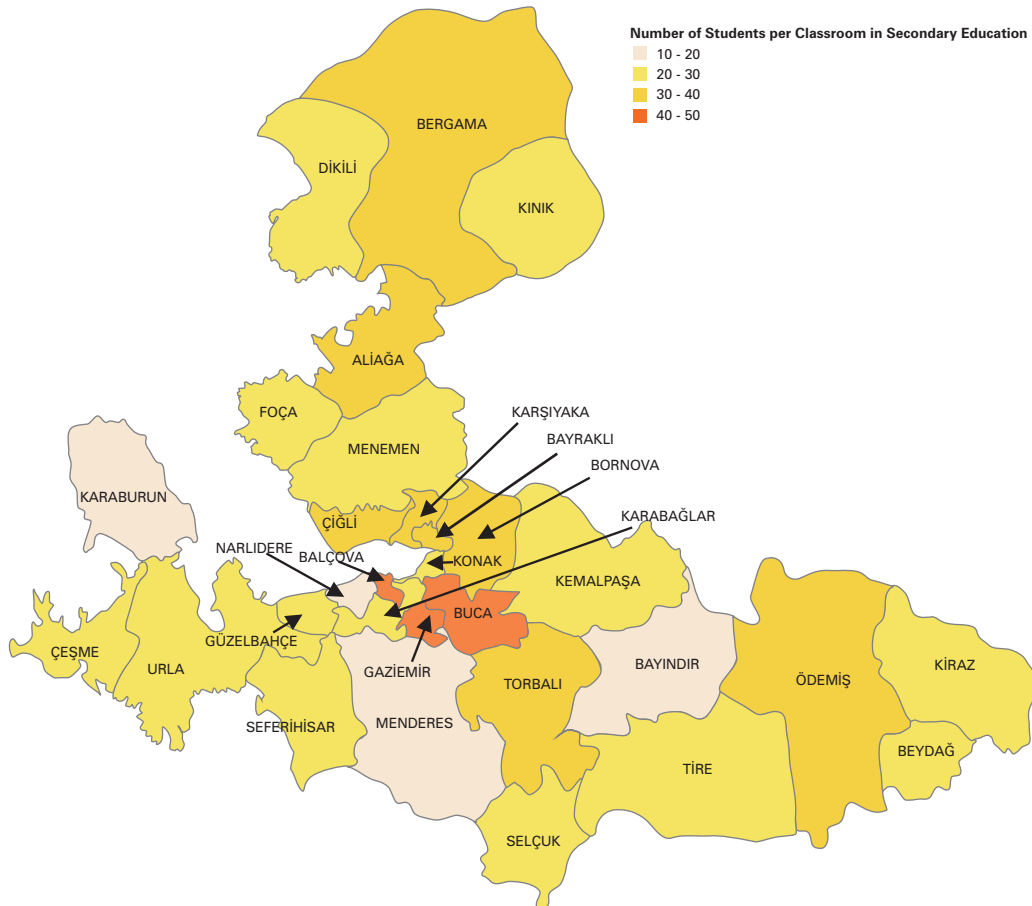


Figure 7: The Number of Secondary Education Students per Classroom in Districts of İzmir for 2008-2009 Education Year

vocational high schools has happened to be 15 for İzmir within 2008-2009 education period while the same value has been 17 for Turkey general. In the same period, the number of students per classroom is at the same level in Turkey and İzmir (31). However, important differences strike attention regarding number of students per classroom from district to district. As can be seen from Figure 7, in some certain districts with Balçova, Buca and Gazimir coming foremost, classrooms are overcrowded and improvements are required regarding this issue.

According to TÜİK data, the secondary education net schooling ratio for general and vocational high schools has happened to be 68.16% in İzmir within the 2008-2009 education period. This level is above that of Aegean Region (% 65,3) and Turkey (% 58,52) average values. Taking also into consideration the 29,234 students being educated through open general and open vocational high schools in İzmir, the gross schooling ratio reaches 88.82%, and yet again exceeds the level of Turkey average which is 76.62%. Therefore, the most prioritized problem of İzmir regarding accessibility to education is the high number of students per classroom experienced especially harsher in the districts mentioned above, more so than the schooling ratio or the number of students per school/teacher.

2.b.1.d. Vocational Education

According to Prov MEM data, a total of 246 vocational and technical high schools (245 public and 1 private) supply education to 75,646 students with a total number of teachers of 5,078 within the 2008-2009 education period in İzmir province. The only private vocational high school in the province has four teachers and ten students. The schooling ratio regarding vocational education in İzmir has been assessed within the previous section of the analysis due to being calculated together with the general high schools within secondary education context in Prov MEM data for 2008-2009 period.

According to 2007-2008 data, the number of students per vocational high school is 284 throughout Turkey, 259 in Aegean Region and 314 in İzmir. The number of students per teacher on the other hand has been found

out to be 15 for Turkey and 14 for Aegean Region and İzmir within the same period (TÜİK, 2008: p.93).

According to the Prov MEM data for 2008-2009 education year, the number of students per vocational high school has been found out as 307.5 and the number of students per teacher as 14.89 for İzmir. As was indicated previously in preschool education, elementary education and secondary education general high schools, similarly the number of students per vocational high school is higher in İzmir than that of Turkey and Aegean Region averages while the number of students per teacher is lower.

Within the context of an evaluation of the quality of vocational education that gradually gains importance especially regarding enriching the opportunities towards the employment of young population and meeting the demand for intermediate staff, foremost comes the curriculum i.e. the content of the education, among all aspects to be handled. In İzmir, in which industry and services sectors have a wide range of variety, it shall be beneficial to shape vocational education towards the demand of local economy. In this regard, vocational education/trainings have been being supplied in a wide range of variety from computer hardware to accounting, from office administration and secretary services to installation technology, and from metal technology to garment industry within 2008-2009 period in İzmir.

Therefore, universalizing of the vocational education that already has a considerably wide range regarding content should be supported towards paralleling the local demands of İzmir economy. For this purpose, deeper district-based analysis studies should be conducted towards understanding what the demands of local economy are from vocational education and if the local existing curriculums are in sync with this result, and steps towards this direction should be developed according to the findings of mentioned studies.

2.b.1.e. Higher Education

As of year 2008, there are six universities in İzmir. Ege University (EÜ), Dokuz Eylül University (DEÜ), İzmir Institute of Technology (İYTE), İzmir University of Economics (İEÜ), Yaşar University and İzmir

University⁴. With the addition of Gediz University⁵ that has been founded in year 2008 but not yet begun education, the total number reaches seven. While EÜ, DEÜ, İYTE among the listed are state (public) universities, the remaining ones serve as private foundation universities. Within the province as of 2008-2009 period, a total of 39 faculties, 23 institutes, 14 graduate schools, 15 vocational graduate schools and 3 vocational medical graduate schools within the body of six universities mentioned above.

These higher education institutions carry out their academic activities in a wide range from social sciences to natural and applied sciences, from administrative sciences to engineering sciences. In this regard it may be mentioned that the universities in İzmir are practiced and experienced for every level of national and international institutional cooperation, project development and programming activities, and working in collaboration with public/private sector and NGOs. However, a qualitative analysis of the abovementioned practice and experience and specific studies to be conducted towards further development of the relevant existing situation shall be necessary.

Regarding research-development activities that are important titles in higher education, it may be said that universities of İzmir are nationally-effective institutions. In this regard, İYTE and various academic institutions of other universities founded in order to give a technology-based higher education service in context of research-development activities constitute the fundamental institutional and academic basis of the research and development activities in İzmir. Especially the İzmir Technology Development Area that has been established on an acreage of 2.5 km², employing an indoor area of 12,200 m² within the İYTE campus is expected to have huge importance for universalization of the research and development activities in economy.

Regarding students dormitories which is one of the most important services given for the higher education students in İzmir, it is indicated according to 2007 data that there are a total of 132 public and private

dormitories within the province, housing a total of 4,247 students with an occupancy rate of 58%. Specific studies are needed to be conducted in depth towards understanding how many of the students coming to İzmir from other provinces to study stay in these dormitories, what the qualitative and quantitative conditions of these dormitories are, and in what kind of a condition do the three sides of higher education students, academic staff, service personnel exist.

2.b.2. Informal Education

Informal education encompasses education, learning, counselling and implementation activities organized along or outside of formal education, for individuals who are either never participated or presently at any level of formal education, or individuals who got out of these levels. Informal education, which covers a wide range of aims such as teaching reading-writing to illiterate adults, giving fundamental knowledge, developing previously acquired knowledge and skills, increasing employability and strengthening the social integration of individuals, is a field of a constantly growing importance within actual education policies.

According to Prov MEM data, vocational technical trainings, social cultural courses, literacy classes and social cultural activities are held in İzmir within context of informal education. In regards to this, while vocational technical trainings were given in a total of 81 different branches (subjects) within context of informal education by Prov MEM in İzmir for the duration of 2002-2003 period, this number has risen to 243 branches within 2008-2009 period. It is pleasing that the vocational education given within context of informal education has been expanded to such a degree regarding its content variety. And the number of trainings held in context of these branches were 995 within the duration of 2002-2003 period, while rising to 2,672 in 2008-2009 period. The same increase has likewise been observed in the number of trainees attending these trainings. According to this, the number of trainees which was 23,540 within 2002-2004 period has increased to 65,770 within 2008-2009 period.

⁴ İzmir University has begun giving educational services to a total of 526 students with its 4 faculties and 1 vocational graduate school in 2008-2009 period.

⁵Gediz University that has been founded in July 2008 plans to begin educational services as of 2009-2010 education period with 3 faculties and 2 institutes.

A similar increase is being observed in the social and cultural courses held by Prov MEM within context of informal education in all three aspects; number of branches, courses and trainees. The sociocultural courses that pave the way for the trainees' social integration were held in 60 different branches in 2002-2003 period, while rising to 101 branches as of the 2008-2009 period. The number of social and cultural courses given within the same period has increased from 724 to 4,854, and the number of trainees from 19,380 to 99,680.

Furthermore, foreign language education has been given to a total of 7,653 individuals in seven different languages within the 2007-2008 period. Aside from this, within the context of Placement Test courses (preparation for Anatolian High Schools, Science High Schools, Private High Schools) and Student Selection Exam courses (preparation for higher education) that are considerably important in regards to supporting the educational equal rights especially for the students from families within the low-income poor social segments, a total of 1,387 courses are planned to be opened to serve a total of 30,629 individuals by Prov MEM as of the 2008-2009 period.

The vocational technical trainings, social and cultural courses, foreign language courses and courses towards student selection exam that are given by Prov MEM within context of informal education are very beneficial especially for groups such as women, disabled people, detainees and convicts, elderly population and street children who are disadvantaged towards employment, educational equal rights and social integration. In this regard, the universalization trend met in this field during the recent years should be maintained.

Looking at literacy classes, a decrease is observed in the recent years according to Prov MEM data. The literacy classes that had acquired a momentum within the context of the Campaign of Support for National Education (Ulusal Eđitime Destek Kampanyası) that was started back in 2001 have begun declining again in 2003 with the end of the project. According to this, within 2002-2003 period a total of 1,197 literacy classes have been opened in İzmir of which 1,117 have been completed, while during 2006-2007 period only 639 literacy classes were opened within the province of which 620 were completed. And the number of trainees

completing these classes have declined from 16,276 (2002-2003) to 7,688 (2006-2007).

Within the context of the Campaign of Support for National Education, works have been performed also together with actors such as other public institutions, local administrations and NGOs regarding literacy classes. However despite all these efforts, only a 43% portion (94,725 individuals) of total target group (221,611 individuals) designated to be illiterate could have been reached in İzmir within the abovementioned project context. Considering that the illiterate population in İzmir is constantly being replenished via the dense immigrations into the province, maintaining determination in this issue gains even more importance.

These efforts are aimed to be maintained through the recent campaigns of Mother-Daughter At School (Ana-Kız Okuldayız) that is realized via cooperation with NGOs and Turkey Reads (Türkiye Okuyor) that is realized via cooperation with the public. In regards to these, it is aimed to open a total of 493 literacy classes towards the target group (166,484 individuals in 6+ years age group, 165,221 individuals in 15+ years age group) who are defined to be the illiterate population in İzmir according to 2008 ABPRS data and thus to reach 8,310 individuals with the classes within the 2008-2009 period. Considering this number corresponds to only 5% of the target group, it would be beneficial to deepen the efforts towards the illiterate population of İzmir, increasing the extensiveness and attendance rates of the classes, and strengthening the collaboration with public, private sector and NGOs regarding the issue at hand.

2.c. Culture

Culture nowadays is one of the fundamental fields contributing to preservation of social assets and identities, strengthening social integration and moreover, as an economical asset by itself, contributing to the strengthening of local, regional and national economy. Therefore, sociocultural infrastructure is one of the prioritized subjects handled by social development with both its social and economical added value. Evaluations regarding the cultural assets in İzmir have been conducted and presented at the analysis' another section related to tourism. In this section, mainly the infrastructure of İzmir related to sociocultural

facilities and its reflection in social field shall be investigated.

2.c.1. Museums

In İzmir, a total of 16 museums exist of which most belong to institutions such as the Ministry of Culture and Tourism, İBB etc. (KVM, 2009). As a natural result of the immense historical and cultural accumulation of İzmir, these museums mostly serve as archaeological and ethnographical museums. Also, there are public and private museums giving service in subjects such as fine arts, historical eras, natural history and industry. Aside from these museums, especially the cultural centres (cultural houses) established by local administrations in districts function as cultural facilities under various subjects.

İzmir Museum of Archaeology, Ephesus Museum and Bergama Museum which have the most number of pieces among these museums have a vast value and potential. However, in contrary to this immense potential it cannot be said that similar archaeological open air museums are uncovered with a preservative approach and brought in to cultural life and economy at the mentioned museums or other several archaeological ruins spread to all four corners of the province. Likewise it may be said that the culture, art and thematic museums concentrated mostly at the Centrum are not common or effective enough in terms of sociocultural angle compared to İzmir being a socioeconomical attraction centre.

Reasons of this inadequacy may be very diverse. Such as inadequacies experienced in archaeological discovery and inventory creation, legal obstructions that do not provide effective preservation but instead cause stagnancy regarding bringing out the said potential, museology (museum studies) not becoming widespread especially regarding the education system etc. In this framework, in order to produce strong solutions to museology in İzmir, initially the potential of this field within the province should be assessed and studies regarding the policies towards having this potential to present quality contributions to cultural accumulation and economy should be conducted.

2.c.2. Cultural and Art Centres

In İzmir, aside from the museums there are cultural and art centres that are established mostly by local administrations, designed towards art and culture, and sometimes towards certain themes. Among these, especially the Ahmet Adnan Saygun Art Centre that has recently been established by İBB is presented as a fine example nationwide, while the Historical Coal Gas Plant strikes attention as a successful example of claiming an old structure as a cultural asset. Aside from these, there are facilities especially within the body of universities situated in the province enabling scientific, cultural and art activities. According to year 2007 data, there are a total of 12 cultural and art facilities belonging to the universities with an overall capacity of 14,679 people (İBB, 2008).

In addition to these, French Cultural Centre, German Cultural Centre, American Cultural Centre, Italian Cultural Centre and English Cultural Centre exist and hold cultural and art activities in İzmir under the authority of their respective embassies. Further studies are needed to be conducted in depth towards subjects such as how much of the demand all these facilities meet in İzmir as cultural and art centres, how do the services they present contribute to constituting an effective cultural and art attraction effect within the province, and how can this situation be made more effective.

2.c.3. Movie Theatres and Playhouse Theatres

The number of movie theatres that was 41 as of year 2000 has increased to 86 as of year 2007, while the number of total moviegoers has increased from 1,063,048 to 2,219,436 in İzmir (TÜİK, 2008: p.98). These increases in the number of movie theatres and moviegoers are slightly above the increase rates observed throughout Turkey and Aegean Region within the same period. However, it is difficult to say that this quantitative increase is sufficient by itself towards pointing out a qualitative improvement in movie sector within İzmir regarding an artistic or cultural viewpoint. More in-depth qualitative and quantitative studies regarding this matter should be conducted.

When data regarding playhouse theatres (playhouses) are considered however, the situation is different. While

the number of playhouse theatres increased from 108 to 130 throughout Turkey between years 2000 and 2007, this number changed from 10 to only 11 in İzmir (TÜİK, 2008: p.99). According to actual cultural data of TÜİK on the other hand, during year 2008 the number of theatres displayed a significant increase in both Turkey (204) and İzmir (26). However, it is difficult to say that these increases in the number of theatre halls (both in Turkey and in İzmir) are adequate compared to the population increases. Moreover, it should be remembered that this increase would not provide a qualitative analysis regarding playhouse theatres.

Between 2000 and 2007 the number of playgoers has declined from 3,746,161 to 2,419,262 throughout Turkey, and could increase back to only 3,380,214 in 2008. In spite of this distinct decrease in the number of playgoers throughout the country, the number of playgoers in İzmir has increased from 149,083 (2000) to 211,249 (2007) and then to 248,459 (2008). At this point it may be said that the demand throughout the country for plays and playhouses has declined compared to the population increase while in İzmir it has not decreased but increased on the contrary. While İzmir is behind even the inadequate increase throughout the country regarding establishment of new playhouse theatre halls, the demand towards this art branch is on the rise within the province. Therefore, the demand in İzmir towards new playhouse theatres is stronger compared to countrywide average demand.

2.c.4. Libraries

When libraries, constituting another important field in social assessments regarding culture, are considered, it is seen that their present situation has gotten weaker both in Turkey and in İzmir. Considering public and children libraries, the number of total libraries throughout Turkey has declined from 1,340 to 1,162 between years 2000 and 2007. Within the same period, the number of libraries in İzmir has likewise decreased from 50 to 44 (TÜİK, 2008: p.94). During that period the number of people using libraries has increased throughout Turkey from 19,975,215 to 20,228,517, however this number has declined from 522,927 to 362,191 in İzmir.

Although one reason of this decline observed both

throughout Turkey and in İzmir is the increase of the role of internet towards reaching information, the importance of libraries especially towards qualitatively increasing the habit of reading within the context of informal education cannot be discarded. In this regard, libraries and library utilization should be universalized throughout Turkey and İzmir, and studies should be conducted for this purpose regarding education policies especially within the context of informal education.

2.c.5. Cultural Activities

Many cultural and artistic activities open to participation are held in İzmir at international, national and local scale. In these activities, many of them festivals, a significantly wide range of different cultural and artistic interests are answered. Among these come festivals such as the International İzmir festival, International İzmir European Jazz Festival, International İzmir Film Festival and outstand regarding institutionalization. Also in İzmir, a total of 57 local festivals are held of which some are open to international participation (İZKA, 2008). However, coordinative development may be recommended for these festivals in order to increase the contribution they provide to both cultural and artistic accumulation and to local economy.

2.c.6. Media

In İzmir, a total of 50 local newspapers, 6 news agencies, 18 national magazine representatives, 3 local magazines, 12 local radios, 4 local television channels and 9 national television channel representatives exist and function (İBB, 2008). It is observed that a major portion of these institutions concentrate around the central districts of the province. However it may be said that especially regional and local media are also influential in districts. Still, more in-depth studies are needed to be conducted in order to obtain a qualitative and quantitative evaluation of the existing situation of media within İzmir province.

2.d. Health

2.d.1. Primary Health Indicators

Primary health indicators of İzmir province generally range above the country average values. Qualitative and

quantitative improvements experienced in fields such as mother and child health, vaccination and 112 emergency services enabled the primary health indicators to increase in the recent years. According to data of Provincial Directorate of Health, it is seen that during the last 8 years vaccination application numbers have constantly increased, raising the provincial vaccination rate above the country goal of 95% as of 2008 with a provincial overall vaccination ratio of 96.78%.

Thus in the province, no infantile paralysis have been experienced for the last 15 years, no diphtheria for the last 10 years, and no pertussis, tetanus or measles sicknesses for the last 2 years. Considering mother and child health, infant death rate has declined down to 9.1 per mille as of 2008, and mother death rate has declined from the year 2000 value of 19 per hundred thousandth to 12.9 per hundred thousandth. 98.9% of all births in the province have taken place in healthcare institutions. And with 112 emergency services, 90% of all calls have been reached within 10 minutes.

According to the province total consultation statistics including policlinics and emergency units for year 2008, there are 3,500 patients per doctor, 4,389 patients per nurse and 11,072 patients per midwife. Considering the bed occupancy rates of the hospitals under the Ministry of Health, universities and other institutions, and private hospitals, an overall ratio of 70.7% can be reached.

On the other hand according to TÜİK data, an average of 4,692 patients exist per specialist doctor in İzmir as of year 2008. This value is more advanced than that of Aegean Region (7,905) and Turkey (56,292) levels. Likewise, an average of 6,817 patients exist per nurse in the province and this ratio is yet again better than Aegean Region (14,054) and Turkey (100,144) levels.

However, these values are not sufficient by themselves to assess the healthcare services within the province. Quantitative studies to compare the mentioned data on national and international scales and studies assessing the qualitative aspects of healthcare services provided should be conducted, and policies towards improvements in healthcare field should be developed.

2.d.2. Accessibility to Healthcare Services

According to the data of İzmir Provincial Directorate of Health, there are a total of 48 functioning hospitals in the province as of 2009. These hospitals include Ministry of Health hospitals, university hospitals, private hospitals and military hospitals. Examining the distribution of these hospitals in districts show us that Konak district comes foremost with 20 hospitals. It is expected for the major part of healthcare services to be concentrated at Konak due to its being the centre of metropolis area. Regarding hospitals' district-based distribution, it is seen that other than Beydağ, Dikili, Gaziemir, Güzelbahçe, Karaburun, Kemalpaşa, Kınık, Menderes and Narlıdere, in 21 out of 30 districts there are existing hospitals. And in the mentioned districts healthcare services are met either via health clinics or from institutions in neighbouring districts.

Examining the total capacity of the hospitals managed by public, private, university and other institutions within the province, a significant accumulation strikes attention in metropolitan districts, especially Konak district. A major portion of province's total operation tables (316) are within metropolitan districts' borders (294). Similarly, a significant portion of province's total beds (10,084) exist within central metropolitan districts (9,421). This concentration at the Centrum causes problems in accessing healthcare services regarding both central and other districts.

Considering the hospitals that are concentrated in metropolitan districts receive patients not only from neighbouring districts but also significant number of people from neighbouring provinces, this situation gets even more distinctive. This can be seen as a weakness also regarding contingency and disaster management for İzmir of which entire territory is first degree seismic zone and is face to face against other disaster risks such as flash flood. In this regard, increasing the accessibility to healthcare services in outer districts, improving especially the primary healthcare services would be beneficial.

2.e. Institutional Structure

It is a well known fact that institutional structure goes in parallel to the development degree of the social,

economic and cultural structure in any given region. In this regard, İzmir is one of the most developed provinces in our country regarding institutional structure. And it may be expected that İzmir would be one of the most developed regions regarding institutional structure in the event the same comparison is made among Level 2 territories. However, evaluations related to aspects constituting institutional structure such as quality and quantity of the public, private sector and NGOs, their widespread distribution within region and among society, and their institutional capacities affect the institutional structure as an integrated whole. In order to better assess the present situation of İzmir in this matter, specific studies should be conducted.

2.e.1. Civil Society (NGOs)

According to Ministry of Internal Affairs Department of Associations data, considering the distribution of associations throughout the country it is seen that İzmir comes right after İstanbul (21.13%) and Ankara (10.23%) with its value 5.9%. According to the information that has been issued by İzmir Provincial Directorate of Associations based on the data of Provincial Security Directorate, as of January 2009 there are a total of 4,265 functional associations within İzmir province.

It is indicated that a major portion of these associations are social purpose associations (1,397), followed by sports purpose associations (786), religious purpose associations (652) and cultural purpose associations (155). Considering the higher education student associations (37) and all remaining associations (1,238) in addition to the previously mentioned ones, it is understood that most of the associations in the province function towards social activities.

In the light of the same data it is seen that there are a total of 228 foundation in İzmir as of year 2007 which mostly comprise of religious foundations. It is observed that foundations related to education, social solidarity and cooperation are also widespread throughout the province. Furthermore it is known that there are twenty professional organizations in İzmir of which most comprise of chambers of engineering, effective in many fields from engineering and architecture to commerce and various industry branches.

Similar to Turkey general, a considerable amount of the institutional structure related to civil society is comprised of hometown associations in İzmir. As of February 2009, there are a total of 204,186 associations throughout Turkey, of which 80,642 are functional and 124,544 have been abolished. 8,360 of all these (10.36%) are hometown associations. Half of all hometown associations are situated in İstanbul. As of March 2009, there are 4,359 functioning associations in İzmir of which 507 associations (11.63%) are hometown associations.

Hometown associations, despite having served at the beginning for the immigrants especially in metropolises receiving dense numbers of rural-to-urban immigrants-as a means of social and economical solidarity, recently they potentially produce adverse effects regarding the development of urbanization and urban consciousness. The immigrants organizing within their own closed organizations instead of integrating with the whole society weakens social integration and decreases social cooperation, collaboration and interaction.

Likewise, organizations such as various professional organizations, industry and commerce chambers, businessmen and craftsmen associations that have different geographical scopes whether it be İzmir, Aegean Region or Western Anatolia are all widespread throughout the province. However, these data are not by themselves sufficient for an accurate assessment of the institutional power of civil society within the province. For qualitative and quantitative aims such as activating policies towards civil society and developing civil dialogue in İzmir, more detailed research in this issue should be done and studies thematically classifying associations regarding their foundation purposes should be conducted.

2.e.2. Other Organizations

In İzmir, there are regional directorates of many public institutions related to central administration and these institutions provide services in different geographic scopes such as Aegean Region and Western Anatolia. Likewise, organizations under academic institutions, foreign embassies displaying activity in various fields such as education and culture are also widespread throughout the province. In this regard, it may be mentioned that the province's institutional capacity is

more advanced compared to other provinces or Level 2 territories. However, it would be beneficial to conduct specific studies related to the capacities of public sector, private sector and NGOs as an integrated whole and the integration of this capacity to development policies for the province.

2.f. Employment

According to TÜİK 2008 household workforce data, total number of workers (employees) is 1.17 million in İzmir. Of these, 73% constitute male and 27% female workers; it is seen when the ratios within sectors are analyzed that female workers join workforce mostly in agricultural sector, while males are employed within industry sector (Table 5). Regarding the number employees on the other hand, both male and female employment is within the services sector.

Examining the change in employment within 2004-2008 period, it is seen that the increase rate in total employment is 2.99%. While the increase in male employment is at 0.82%, this value is at 9.4% for female

workers. The only sector displaying an increase in all of the three (male, female and total) employment rates between years 2004-2008 is the services sector. For employment of men, an increase of 0.98% has been experienced in industry and 20.15% in services sectors, while a decline of 59.40% has been seen in agricultural sector. For employment of women on the other hand, declines have been experienced both in agriculture and in industry (63.83% and 16.44% respectively), while an increase of 80.99% has been seen in services sector (Figure 8).

However, the pressure on employment despite economic growth is observed also in İzmir similar to global scale, and unemployment continues to be one of the fundamental problems regarding employment. Considering the unemployment rates, which have shown a trend towards declining in recent years but with the impact of the global economic crisis have yet again entered into an increase trend, it may be observed that İzmir has an even higher rate of unemployment than that of Turkey (Table 6).

Table 5: Employment in İzmir Regarding Gender and Economic Activity Type, 2008

	Female		Male		Total
	# of workers	Ratio within sector %	# of workers	Ratio within sector %	Thousand individual
Agriculture	34	38,64	54	61,36	88
Industry	61	16,53	308	83,47	369
Services	219	30,67	495	69,33	714
Total	314	26,81	857	73,19	1171

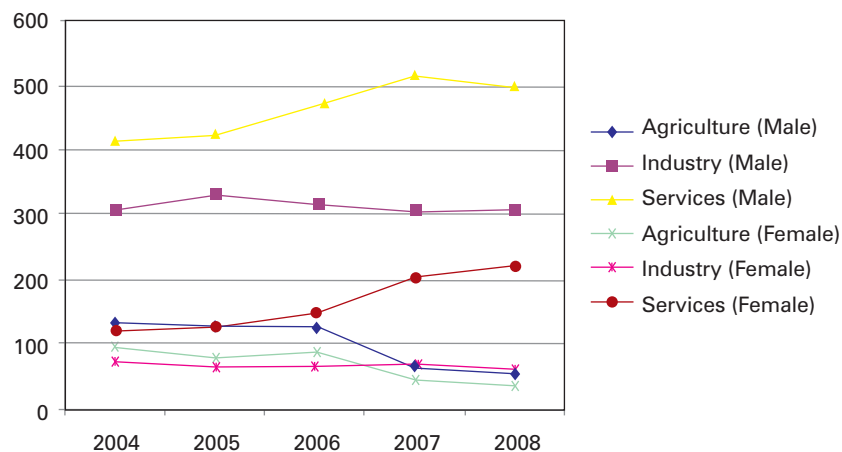


Figure 8: Change in Sectoral Employment by Sex Between 2004-2008 Years

Table 6: Unemployment Rates in İzmir and Turkey

Unemployment Rate (%)		
	Turkey	İzmir
2004	10,3	14,3
2005	10,3	13,1
2006	9,9	11,2
2007	10,3	10,5
2008	11	11,8

Considering the unemployment values of İzmir as a Level 2 territory, we get an unemployment value of 14.3% and non-agricultural unemployment rate of 17.1% for 2004. With these values, İzmir happens to have unemployment and non-agricultural unemployment above Turkey averages (10.3% and 14.7% respectively) and İstanbul (12.3% and 12.4% respectively) (DPT, 2007a: p.58). According to year 2008 TÜİK workforce data, unemployment is at 11.8% and non-agricultural unemployment is at 12.4% in İzmir. These values prove higher than the unemployment and non-agricultural unemployment of İstanbul (both of them 11.2%). Within the same period, the unemployment in Turkey has been determined as 11% and non-agricultural unemployment as 13.6%. In this regard, it may be said that unemployment is slightly higher in İzmir compared to İstanbul and Turkey levels, while non-agricultural unemployment is higher than İstanbul but lower than Turkey levels.

Considering the unemployment rates of year 2000, it is seen that a total of 155,177 people are unemployed and 82.5% of these live within metropolitan municipality borders. It is a well known fact that urban unemployment is a situation posing greater and more dynamic risks regarding social development compared to rural unemployment. In cities where there is subsistence production, the speed (rate) of unemployment-to-poverty transformation is much higher. Access of unemployed population to resources and opportunities in social, economical and other fields decreases much faster and this situation makes the risks involved for the overall social structure more complex through the segment getting disadvantaged as a result of unemployment. In this regard, issues such as the unemployment in İzmir being of a mostly urban nature, this situation constantly being deepened with rural to urban immigrations, and the conditions towards the employment of especially young population being suppressed with economical crises are all prioritized titles to be handled regarding employment in İzmir.

Unregistered (shadow) employment, yet another problem title regarding employment is significant throughout İzmir as is at national scale. According to TÜİK's 2006 household workforce data, the number of unregistered employees throughout Turkey within the total number of 22.3 million working population over age 15 has been approximately 10.8 million, corresponding to a significantly high ratio of 48.48%. It is determined that within the same year in İzmir, 492,000 people (40.96%) have been employed unregistered among the 1,2 million of working people over age 15. Therefore, it may be said that the unregistered employment ratio in İzmir is lower than that of the country average.

According to the same data and examining the sectoral distribution of unregistered employment, it is seen that this problem is most widespread in agricultural sector (5,319,000 people 49.12%) throughout Turkey. Industry (2,152,000 people 19.87%), commerce (2,037,000 people 19.87%) and services (1,319,000 people 12.18%) sectors follow agriculture. Meanwhile in İzmir, it is observed regarding sectoral distribution of unregistered employment that agricultural sector comes foremost (168,000 people 34.14%), followed by commerce (131,000 people 26.62%), industry (123,000 people 25%) and services (70.000 people 14.22%) sectors.

For the above data showing the sectoral distribution of unregistered employment, NACE Rev.1.1. is used, which is utilized by EU as the statistical classification of economical activities. In the event commerce sector is added to services sector as is commonly done in our country for sectoral classification of economical activities, services sector follow agriculture sector (49.12%) regarding unregistered employment with a value of 30.99%, which is then followed by industry sector (19.87%). With the same method, services sector take the lead with a value of 40.84% differing from Turkey average and becoming the sector with the greatest unregistered employment in İzmir, followed by agriculture (34.14%) and industry (25%) sectors.

Resulting in the employee becoming devoid of all kinds of gain and security to be provided by the social security system, unregistered employment also indirectly decreases tax income, and thus limiting the public resources and adversely affecting the social structure. Although the unregistered employment ratios in İzmir are lower than that of countrywide average, the existing level is still significantly high. Therefore, strong institutions and policies to develop effective solutions towards decreasing unregistered employment are required to be put in effect in İzmir.

2.g. Income Distribution and Poverty

Welfare of a society lies at a fair income distribution more so than the total acquired income. Liberalization of economies at national and international scale and the deregulation trends experienced during the recent years, while triggering capital dynamism, deepen the income distribution inequality and poverty. With urban poverty being even more vulnerable against economic crises, the issues of income distribution and poverty are considered among important topics within actual development policies especially regarding a sustainable development.

As can be seen in Figure 9, income distribution

inequality has a strict relationship especially with economic crises. In this regard, 1994 and 2001 economic crises adversely affected the income distribution in Turkey. Another significant aspect of poverty is that it can differ from rural to urban areas. In year 2006, while the poverty ratio of those dwelling at rural regions was 31.98%, this value has increased to 32.18% as of 2007. In urban regions, this value has increased from 9.31% to 10.61% within the same period (TÜİK, 2007a).

Income distribution inequality has deepened with the economic crises experienced and the structural adjustment programs utilized; and although it has shown some improvement due to the high growth rates reached after year 2001, it is still behind EU average. According to year 2003 data, Turkey (0.42) has a higher value in Gini coefficient comparison compared to both EU-25 and EU-15 averages, and even Portugal (0.37) which is farthest from the average (European Commission, 2005: p. 122).

According to research conducted by TÜİK, the ratio of the number of individuals living below starvation line that has been anticipated as 1.29% as of 2004 has declined to 0.87% in 2005, and the number of

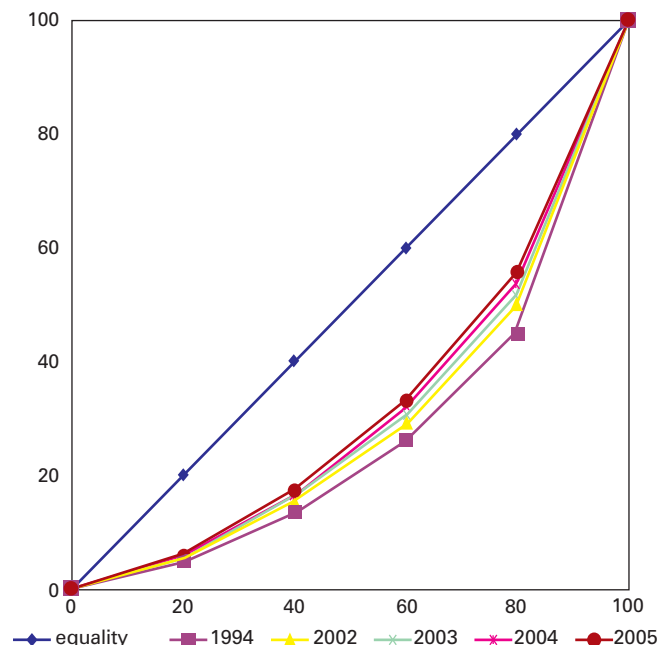


Figure 9: Lorenz Curves - Distribution of Household Income by Segments of 20% Throughout Turkey
Reference: DİE, 1996; DİE, 2003; DİE, 2004; TÜİK, 2005; TÜİK, 2006c

Table 7: Employment of Elementary Education Graduates in İzmir within Various Sub-Sectors

Sector	Male	Female	Total	%
Agriculture, Forestry & Aquaculture	1.191	874	2.065	18,3
Mining	4	1	5	0,0
Manufacturing Industry	1.882	723	2.605	23,1
Electricity, Gas	7	6	13	0,1
Construction	375	6	381	3,4
Wholesale Trade	1.034	279	1.313	11,7
Transportation, Communication	71	31	102	0,9
Financial Institutions	117	151	268	2,4
Social Services	2.842	1.607	4.449	39,5
Undefined	26	31	57	0,5
Total	7.549	3.709	11.258	100

Reference: DİE, 2000 GC Data

individuals living below poverty line declined from 25.6% to 20.5%. In this context, considering 20% of country population lives below poverty line, public investments towards low income society segments, social transfers and tax arrangements should be reviewed with care. Similarly, the increasing unemployment rate is adversely affecting the welfare level of wage-earner working people.

Poverty generally has a strict relationship with education policies. Throughout Turkey, sectors employing elementary school graduates are listed with agriculture coming foremost with a ratio of 56.9%, followed by manufacturing industry with 14.1 and social services with 9.6%. However, as can be seen from Table 7, elementary school graduates are mostly employed in manufacturing industry and social services in İzmir. Considering that most people from the population segments with lower educational levels are employed in labour-intensive low income jobs in rural and urban regions, employability becomes one of the most important means against fighting poverty. Therefore, improving employability, providing professional knowledge and skills and strengthening accessibility of education for social segments of all income levels are of grave importance in order to prevent poverty from being transferred from generation to generation in other

words chronic poverty.

In a similar way, poverty is a critical problem to be handled with care regarding disadvantaged segments. Considering especially the disadvantages the disabled people are face to face in employment markets, it may be seen that employment improvement policies towards disabled people are crucial.

In conclusion, the inequality in income distribution within İzmir is parallel to country general. Considering the income distribution between years 1994 and 2003, no serious improvement can be seen in İzmir (Table 8, Figure 10). However, for the income distribution and poverty in İzmir to be analysed better in order to generate healthier policies regarding poverty in the province, analyses and studies based on local and regional data must be developed, and specific research on the matter should be conducted. Inadequacies observed in this field do not permit having a healthy analysis in İzmir at local and regional scale or province and districts scale.

2.h. Disadvantaged Groups

Disadvantages caused by the position the individuals exist within the social structure or by the features they

Table 8: Distribution of Household Income by Segments of 20% Throughout İzmir; 1994 and 2003

Household (%20 segment)	Total Household Income (1994)	Total Household Income (2003)
Poorest	6,45	6,60
Poor	10,31	10,80
Middle	14,57	15,20
Rich	21,02	22,10
Richest	47,64	45,30

Reference: DİE, 1996; DİE, 2004

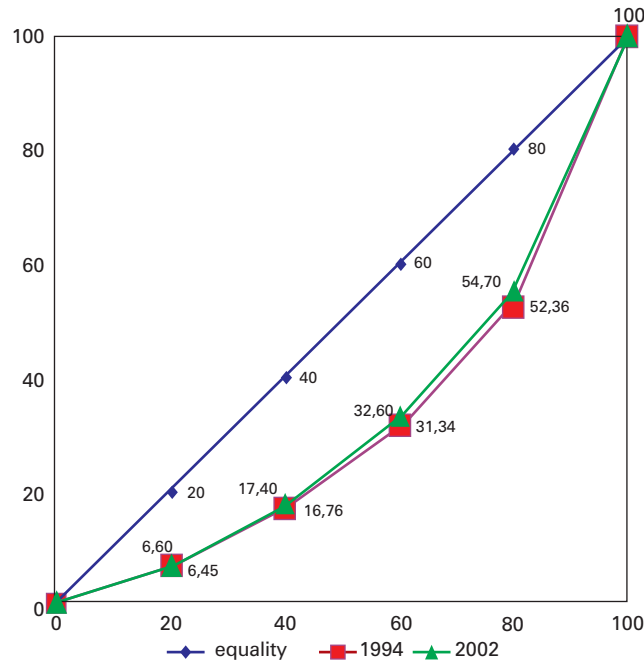


Figure 10: Lorenz Curves - Distribution of Household Income by Segments of 20% Throughout İzmir
References: DİE, 1996; DİE, 2004

have are among aspects that adversely affect their accessibility to various social life fields such as education, culture, health and employment, to exist in social relations such as production-consumption relations by preventing them from effective self-presentation in these fields. Due to gender, disability, income level, sexual orientation and similar different conditions, individuals may become disadvantaged in one or more of the abovementioned fields. The most devastating result of disadvantages regarding social development is triggering social exclusion against the favour of the mentioned groups and thus also triggering chronic poverty, disrupting social integrity based on cooperation and division of labour, and creating unstable social conditions in long term.

2.h.1. Disadvantaged Groups in Education

According to the definition given above, female students, poor students, disabled students, students at rural regions etc. may be defined as disadvantaged in different ways within our education system. Students having any of these conditions experiences the social exclusion deeper than other students and may face greater obstacles regarding successfully continuing their education lives (ERG, 2008: p.31).

In our country, schooling ratio of female students are

generally lower than male students at every level of formal education from preschool to secondary education. It may be said that the situation deepens from urban to rural areas. In a study on the number of children not attending school within 6-14 years age group, it is defined that the number of unattending girls living in urban regions was over 300 thousand while the number of unattending boys living in urban regions was approximately 210 thousand as of 1994. This number increases approximately to 350 thousand for boys and 575 thousand for girls living in rural regions (ERG, 2008: p.31).

However, in result of the extensive efforts made recently by public, civil society and private sector, the schooling ratio of girls have been improved, albeit partially, at national scale and especially in rural regions. The same study found out the number of urban dwelling children not attending school within same age group as; approximately 200 thousand for boys and 250 thousand for girls as of 2006. It has been observed that this value have been reduced to approximately 150 thousand for boys and 320 thousand for girls in rural regions.

The interesting point here is that as of 2006, the number of urban dwelling boys not attending schools within 6-14 years age group has for the first time been found higher than the number of boys not attending schools at

rural regions. This situation can be explained partially with the positive impact of the abovementioned widespread campaigns aimed especially for the female students in rural areas to be schooled, partially with the rapidly urbanizing population throughout the country, and finally with the urban poverty rapidly deepening in the recent years. In this regard, national scale schooling campaigns should be immediately expanded to cover also urban regions, urban poor people and both genders.

According to the same study, the ratio of female students is on the rise at every level of formal education in the recent years. Within 2007-2008 period, slightly over 0.9 female student were being educated per male student within elementary education. In this same period, this ratio happened to correspond approximately 0.8 female student per male student for secondary education. Being more specific regarding the picture for secondary education, while this ratio is around 0.9 female student per male student in general high schools, the value declines down to the level of 0.7 for vocational high schools. However, when we pass beyond the students enrolled and examine the ratios of male and female students graduated from elementary and secondary education, it is seen that the same momentum in the improvement acquired in schooling rates could not be reached in graduation ratios. For every male student graduated from elementary education in 2006-2007 period, approximately 0.87 female student graduates, and this ratio declines down to 0.78 female student per male student for secondary education (ERG, 2008: p.36).

According to schooling ratios within 2008-2009 period Prov MEM data, we may observe that the schooling ratio values of female students are approximately the same with the male students both throughout Turkey and İzmir regarding preschool education. The schooling ratio defined throughout Turkey for 4-5 years age group male students is 34.58%, while the same value is found to be 33.26% for female students (Turkey average 33.94%). While in İzmir province, the schooling ratio increases for both genders, reaching the level of 36.46% for male and 34.81% for female students (İzmir average 35.66%).

Considering elementary education schooling ratios

within the same period, it is seen that in İzmir, female student schooling rates are very close to male student schooling rates and over Turkey average values. According to 2008-2009 period Prov MEM data, the net schooling ratio in elementary education is 96.99% for male students and 95.97% for female students throughout Turkey, while this value is 99.25% for male and 99.18% for female students in İzmir. Adding the female and male students being educated in open elementary schools to this ratio, the overall schooling rates increase at every level for both genders.

When the secondary education schooling ratios are considered it is observed within the 2008-2009 period that without the addition of students attending open high schools, the schooling ratios of female students have been found to decline towards 77.14% for female and 74.97% for male students in İzmir. Adding the open high school students to these data, the schooling rates in İzmir increase to 88.61% for female and 89.20% for male students. These ratios are above the overall levels found within the same period throughout Turkey including open high schools which are 72.05% for female students and 80.96% for male students. In general it may be mentioned that İzmir province is more advanced compared to Turkey average at every level from preschool to secondary education regarding schooling rates for both genders. However, regarding elementary education graduation ratios İzmir ranks within the 2nd best segment within 2005-2006 period that covers ratios 91-95% for female and male students, behind 12 provinces that have an average ratio above 95% among all 81 provinces. Studies and actions conducted in our country against disadvantages stemming from gender are unfortunately based mostly on both insufficient and national-scale data and analyses. Rapidly activating regional and local scale studies related to gender based disadvantageousness in education shall be beneficial towards developing improvement policies in mentioned field within İzmir.

According to 2006-2007 private education data, a total of 27,439 students get education in private education schools and 9,201 students in private education classrooms, while 64,297 students benefit from integration education in 33,418 classrooms. However, it should not be disregarded that there are a total of approximately 253 thousand disabled 5-14 years age

Table 9: The Ratio of Salary-Paid Women to Total Employment in İzmir and Turkey

The Ratio of Salary-Paid Women to Total Employment (%)		
	Turkey	İzmir
2004	10,4	15,7
2005	11,3	15,6
2006	12,2	16,1
2007	13,5	20
2008	14	21,4

Reference: TÜİK Web Site,

http://www.tuik.gov.tr/PreIstatistikTablo.do?istab_id=1237

children in Turkey and half of all disabled citizens in country do not have elementary school diplomas (ERG, 2008: p.42). Regarding the number of disabled people in İzmir and the disadvantages experienced by disabled people in education, the necessity towards in-depth studies based on local scale data is profound.

According to Prov MEM data, a total of 1,685 disabled trainees have been provided education in classes opened in collaboration with other institutions and organizations within informal education context in İzmir within the 2008-2009 education period. Examining the existence of vocational high schools for disabled people, it is seen that there are only 2 vocational high schools (for the trainable mentally retarded and hearing impaired) throughout the province in Bornova and Kınık districts. However, considering the disadvantages experienced by disabled people especially regarding employment, policies towards universalizing the schools in question throughout the province and further activating these mentioned schools in quality should be developed.

2.h.2. Disadvantaged Groups in Employment

According to the definition given above, it may be argued that women are more disadvantageous than men and disabled people are more disadvantageous than nondisabled people regarding employment. However, local and regional studies based on much more detailed field research are required in order to assess the existing situation in this matter both at national and at İzmir scale.

In İzmir, women's workforce participation ratio is at a level close to Turkey average. According to 2008 TÜİK workforce data, women's workforce participation ratio has been at 23.6% in İzmir as of 2006, while this value was 24.9% throughout Turkey. This ratio has increased to 25% in 2007 for İzmir, while declining to 23.6% for

Turkey. And in year 2008, women's workforce participation has happened to be 24.5% for both İzmir and Turkey.

However, as was declared in previous evaluations regarding employment, non-agricultural sectors generally have a higher capacity for creating employment in İzmir. Moreover, due to the non salaried family labour that is common throughout agriculture sector increasing the ratio in Turkey general while calculating women's workforce participation, the women's workforce participation ratios of Turkey and İzmir are found close to each other. Therefore, it is more convenient to consider the ratios of women working in non-agricultural sectors with salary-paid jobs in order to better assess the existing situation of women regarding employment in İzmir province.

According to TÜİK 2008 household workforce data, the ratio of salary paid women workers to total employment is higher in İzmir (21.4%) compared to Turkey average (14%). This situation may be considered as a favourable process in terms of pointing towards the woman workforce breaking out of the agriculture sector in which they work as non salaried family workers especially in socioeconomical structures where rural economy is at strongest and entering the manufacturing and services sectors where a workforce demand towards high knowledge and skills and income acquirement opportunities are more widespread. İzmir, which has a constantly higher ratio of salary-paid woman workers to total employment compared to countrywide average -as may be seen in Table 9- thus presents a wider range of opportunities regarding woman employment compared to country average levels.

Disabled people experience difficulties being integrated into society in their social lives due to not being involved enough within workforce market and education (DPT, 2007a: p.60). Taking into consideration the facts that

21% of disabled people do not know reading-writing, more than half are not even elementary education graduates, and the adverse effects of low education level and low professional skill level towards employability; it may be mentioned that disability is a significant disadvantage towards employment in our country. Due to reasons such as social living spaces limiting their mobility, not creating suitable environment at workplaces and the demand towards disabled workforce being considerably limited, only one out of five disabled individuals can find place within workforce market in our country (DPT, 2006: p.43). In result of insufficient basic education, professional education and professional rehabilitation processes, disabled people face an unfavourable picture regarding employment, and detailed studies are required in this matter regarding what the existing situation in İzmir is and what kind of policies should be developed within the province.

2.i. Evaluation

Displaying a development level above or equal country average under many titles related to social structure, İzmir has been ranked as the third most developed province among 81 provinces by both socioeconomic and competition-based studies. Still, it cannot be denied that İzmir is face to face with complex problems in various subjects ranging from education to healthcare, and from employment to immigration. Therefore, it may be mentioned that İzmir is facing distinct problems, striking strengths and weaknesses, significant opportunities and threats some of which are based on local and regional dynamics and some that should be evaluated at national and international scale.

The first characteristic in the social structure of İzmir is observed within its population structure. In other words, the population structure of İzmir differs at many angles from country characteristics. Having a population density far higher than country average, the province's population increase rate is also generally higher compared to average. This process, which also brings significant weaknesses and threats regarding urbanization alongside, deepens further with the urban population ratio of İzmir that is also higher than country average. In short, with its population more rapidly intensifying, increasing and urbanizing compared to country average, İzmir is in need of strong and effective

policies especially regarding subjects such as healthy urbanization, contingency and disaster management, transportation and environment.

Another important title regarding population is the low household size of İzmir compared to country general values. In other words, people are living in dwellings with lesser number of individuals in İzmir. This diminishing family structure size is most experienced -in contrary to the common belief- not at the metropolitan districts but rather especially at Karaburun, a district at far western of İzmir, followed by northern axis districts of Bergama and Dikili, and southern axis districts of Bayındır, Tire, Ödemiş and Beydağ. This situation gets deepened even further with the young population in said districts immigrating to Centrum and other provinces due to the employment hardships within the agriculture based economy they live in.

Another phenomenon deepening this process is the population in İzmir being more elderly compared to country average. Especially in the districts mentioned above, the aging population strikes even more attention. The necessity of putting effective policies and institutions related to aging into effect has been already mentioned within the 9th Development Plan. It is currently observed that services and institutions for elderly people in İzmir are concentrated mostly within metropolitan districts. This situation indicates the necessity of universalizing the services and institutions towards elderly people especially regarding accessibility. Likewise, the mentioned services and institutions should be improved also in terms of quality and variety. However despite this picture, a considerable ratio of children and youth population exists in İzmir as in country general. Policies towards realizing the social integration of this population especially under titles such as education, employment, culture, civil society are crucial.

Another characteristic of İzmir regarding population is its being an attraction centre for immigration at local, regional and national scale. In result of this immigration from neighbouring provinces to İzmir and from outer rural districts of province to central districts stemming mostly from economic expectations, İzmir becomes face to face with serious problems. In this regard, the immigration İzmir attracts from other provinces at

national scale, and the emigration from rural outer districts of İzmir to metropolitan districts and other provinces limit accessibility to basic social services such as education and health at province scale, and strain the existing structure under basic titles such as urbanization, social integration, urban consciousness, population, employment and poverty. For the phenomenon of immigration in İzmir to be managed effectively as integrated whole, specific studies related to different aspects of the issue should be developed. In this way, it would be possible to manage the phenomenon of immigration as to support social integration under fundamental titles such as education, health, employment, urbanization and urban consciousness.

Considering the present situation of İzmir regarding education, it is observed that in many ways the province is at a position more advanced or equal compared to country average. However, perspectives at different levels in evaluations related to education still reveal local and regional problems İzmir is face to face regarding education. For instance, while İzmir is at a more advanced position regarding preschool schooling rates compared to country average, this position is significantly backwards compared to international values. Similarly, although İzmir seems to meet considerably high levels regarding elementary and secondary education schooling rates, number of students per classroom is significantly high at local and regional scale especially in districts such as Buca, Bayraklı, Karabağlar and some other metropolitan districts. Likewise, number of students per teacher and per classroom differs significantly between private and public schools.

Considering vocational education, there are not sufficient analyses and studies regarding the compatibility of the local and regional İzmir economy and the curriculum in question. But the compatibility of vocational education, which is of great importance regarding development due to its employment-increasing aspect through meeting the demand for intermediary workers, and the demands of local and regional workforce market is crucial. Likewise, İzmir is making progress towards informal education, which has significant benefits in subjects such as social integration, employability and equal opportunities. In higher education, with the universalization of foundation

(private) universities, and the progress made by İYTE and existing universities towards collaborating with public sector, private sector and NGOs in technology and R&D subjects the advancement reached in İzmir is promising. However, it should still be beneficial to assess higher education in İzmir qualitatively and quantitatively with relevant specific studies.

In addition to these, specific studies and research are needed regarding the quality of education service at every level of formal education from preschool to higher education. This is because the general characteristic of educational structure is defined also by the quality of methodology, equipment, supportive services etc. of the environment as well as the accessibility of educational services and opportunities. Yet it is observed in local and regional evaluations regarding education in İzmir that these qualitative analyses and relevant consistent data are insufficient. Likewise, there is a certain lack of data and analysis at local and regional scale for evaluations regarding culture, health and institutional structure in İzmir. Displaying an overall picture regarding primary health indicators above Turkey average, İzmir also provides health services at various levels to a significant population from neighbouring provinces. However, more detailed studies are required regarding accessibility to health services within the province.

Regarding employment, non-agricultural sectors in İzmir seem more successful in employing the workforce being released from agriculture compared to country average. However, more specific studies and research are required regarding the strengths, weaknesses, threats and opportunities of the employment market in İzmir. Likewise, while the income distribution inequality and poverty are observed to deepen with the recent economic crises and to move from rural to urban regions, more in-depth specific studies at local and regional scale are required in the mentioned field. The same necessity is observed also for studies regarding disadvantaged groups.





3

ECONOMIC STRUCTURE





İZMİR SITUATIONAL ANALYSIS



3.a. General Economic Structure

The province of İzmir is the 3rd most developed province of Turkey and the attraction and spreading centre of Aegean Region. The development in Aegean region continues to spread from İzmir the traditional axis of development to neighbouring provinces (DPT, 2003). However, considering its position and the natural, historical, cultural assets at its disposal, the recent development level of İzmir is not at a satisfactory level. Among the factors bearing this result, the most striking are the lack of policies to provide effective utilization of region potential and the decrease of public investments towards İzmir in the last 10 years.

The most important feature of İzmir economy is its multi-sectoral structure. In İzmir, where the agriculture is modernized and industry is diversified and developed, tourism sector also maintains its existence. Also, the natural resources and scientific infrastructure İzmir possesses point out to the existence of a potential towards new and advanced sectors.

According to the studies conducted, the multi-sectoral structure of İzmir became a disadvantage instead of advantage regarding the development of İzmir. The decision of which sectors İzmir shall specialize upon should be given based on objective and scientific approaches. In İzmir, regional specialization is considerably below Turkey average, while sectoral diversity is above average⁶ (TÜSIAD, 2005). This result points out to the necessity of policies towards regional specialization in İzmir.

3.a.1. GDP Level of İzmir

The third province with the greatest contribution to Turkey GDP is İzmir with its GDP capacity of 13.383⁷ million TL according to 2001 current prices, following İstanbul and Ankara. Regarding GDP per capita on the other hand, it is the 6th ranking province⁸ in Turkey with a value of 3,215 \$ (3,894 TL).

Compared to European territories⁹ regarding year 2001 GDP capacity, İzmir ranks at the 185th place among a total of 295 territories (EUROSTAT, 2001). Regarding GDP capacity, there is a difference of 36 times between İzmir and Ile de France territory that ranks at the first place¹⁰. Meanwhile, there is a difference of 13 times between İzmir and Ağrı which has the least GDP capacity among these provinces and territories. Again compared to European territories regarding GDP per capita, İzmir ranks at the 255th place among 295 territories. There is a difference of 7 times with London that ranks at the first place regarding GDP per capita.

Between years 1987-2001, GDP growth rate of İzmir has been at a level of 44.5%. Meanwhile the GDP growth rates of İstanbul and Ankara have been 52.6% and 30.7% respectively. On the other hand, Turkey and Aegean Region have had GDP growth rates of 47% and 48% respectively. It is seen that the growth rate of İzmir nears but falls short of those of Turkey and Aegean Region, while being higher than that of Ankara. Examining the change in GDP growth rate between 1987-2001, it is seen that a change parallel to the GDP growth rate change of Turkey has been experienced in İzmir province. With the economic crises experienced in 1994, 1999 and 2001, GDP growth rate became

⁶ According to Herfindahl specialization index

⁷ This is the form obtained after new currency (YTL) was put into force by removing 6 zeros. The previous value was 13.382.809.692 million TL.

⁸ Most actual GDP values are the 2001 data issued by TÜİK.

⁹ Based on Level 2 Territories and Turkey provinces

¹⁰ Because the most actual GDP values are from year 2001, comparisons could be made based on that year.

negative. While İstanbul and Ankara have been the most affected among three metropolises of the country from these crises, the impact of the crises upon İzmir have been at similar levels of the impact on Turkey general (Figure 11, 12). Due to finance sectors having been concentrated mostly in İstanbul and Ankara, financial crises experienced after 1990 caused more shrinkage in these regions.

The value of 7.5%, which was the contribution value of İzmir to Turkey GDP in year 2001 is approximately at the same level with that of Ankara. The contribution ratio of İstanbul to Turkey GDP on the other hand is 21.3%. Considering the change of GDP contribution ratios between years 1987-2001, it is seen that the ratio over Turkey GDP remains at similar levels during these years for all provinces (Figure 13). The contribution

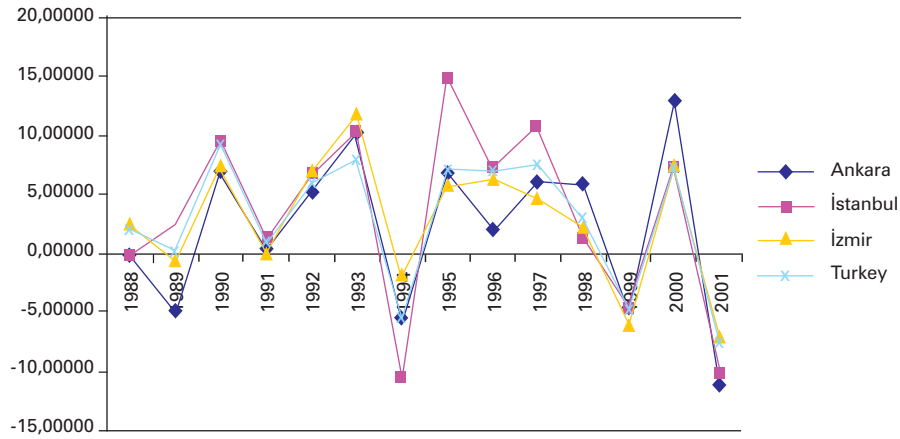


Figure 11: Change of GDP Growth Rate During 1987-2001 Period in Ankara, İstanbul and İzmir (%)¹¹

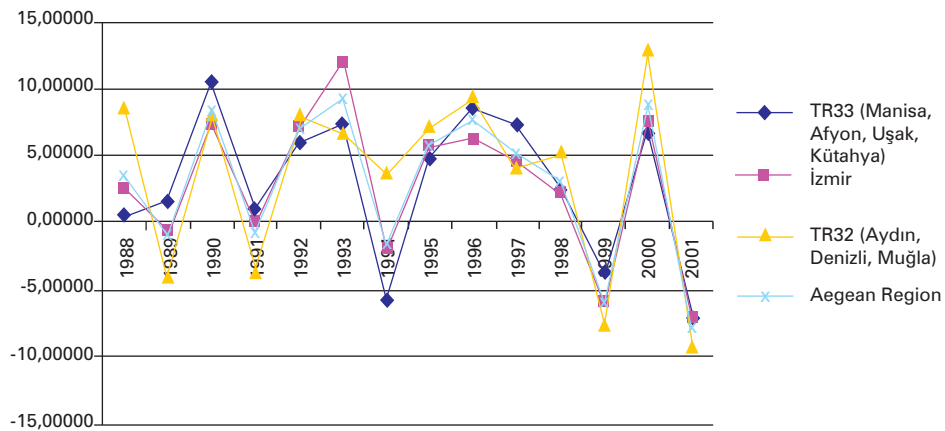


Figure 12: Change of GDP Growth Rate During 1987-2001 Period in Aegean Region NUTS 2 Territories (%)¹²

¹¹ 1987 year prices

¹² 1987 year prices

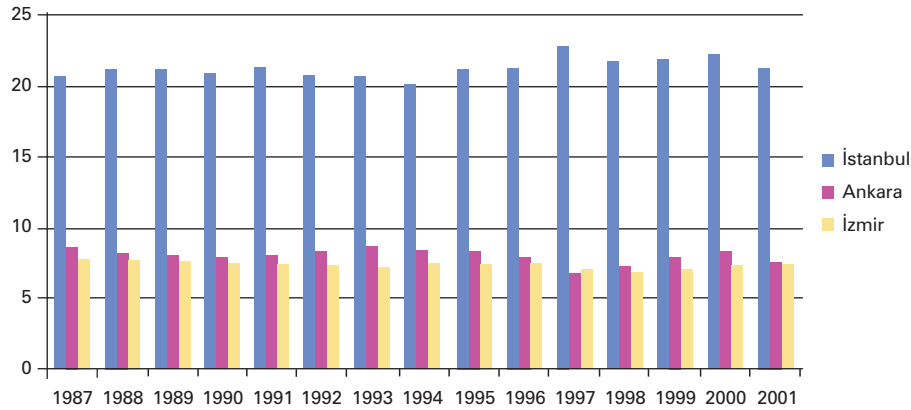


Figure 13: Contribution Ratios of İzmir, Ankara and İstanbul within Overall Turkey GDP (%)

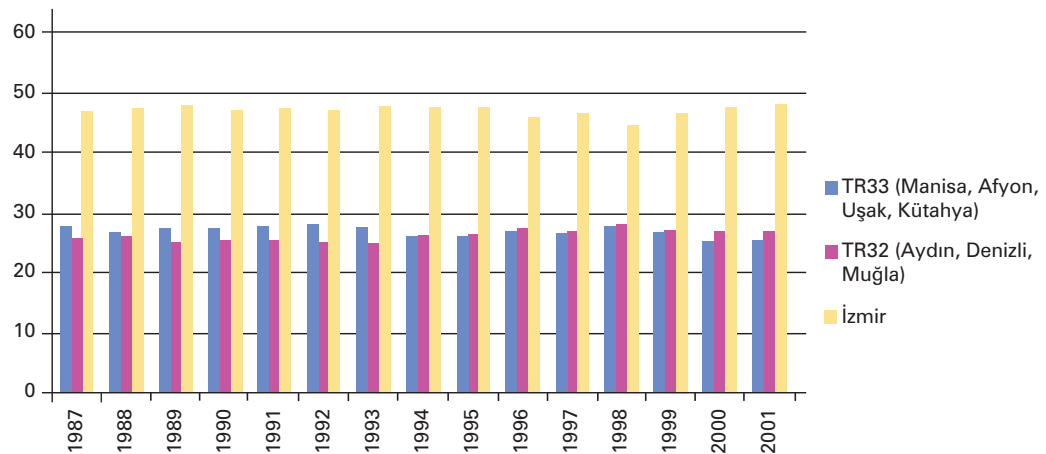


Figure 14: Contribution Ratios of Aegean Region NUTS 2 Territories within Overall Turkey GDP (%)

ratio of İzmir to Aegean Region GDP has been 48% as of 2001 and it is observed that this contribution remained at similar levels during 1987-2001 period (Figure 14).

In sectoral terms, sectors providing the most

contribution to İzmir overall GDP are services (54.4%), industry (37.5%) and agriculture (8.1%) sectors respectively (Figure 15). Considering the change of GDP growth rates of these 3 sectors within years, it is observed that services and industry sectors have displayed a change parallel to the overall İzmir GDP growth rate change,

the growth rate in agriculture sector has not been as stable as that in industry and services sectors (Figure 16). This instability may be due to changes in climate conditions. Considering the contribution ratios of sectors within İzmir GDP, no significant change has been experienced in this field between 1987-2001 years.

3.a.2. Employment

As of year 2008, the total number of employed population (total employment) is approximately 1.17 million. Within overall employment, services sector is the densest sector regarding employment (Figure 17).

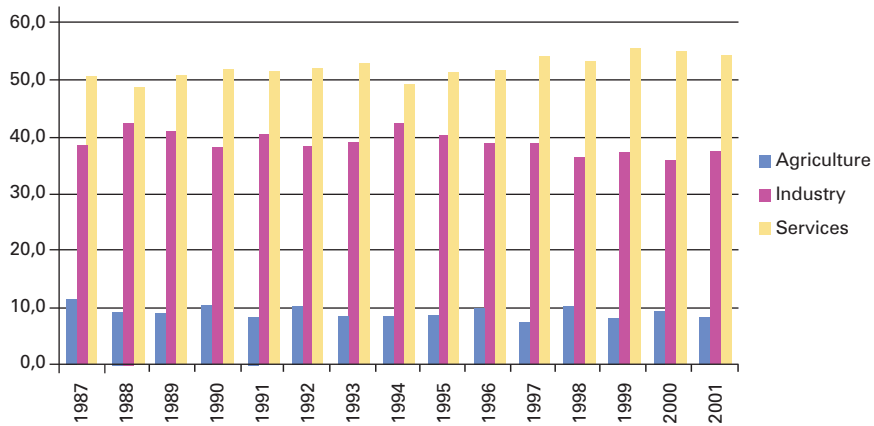


Figure 15: Distribution of GDP in İzmir Province within Economic Activity Branches (%)¹³

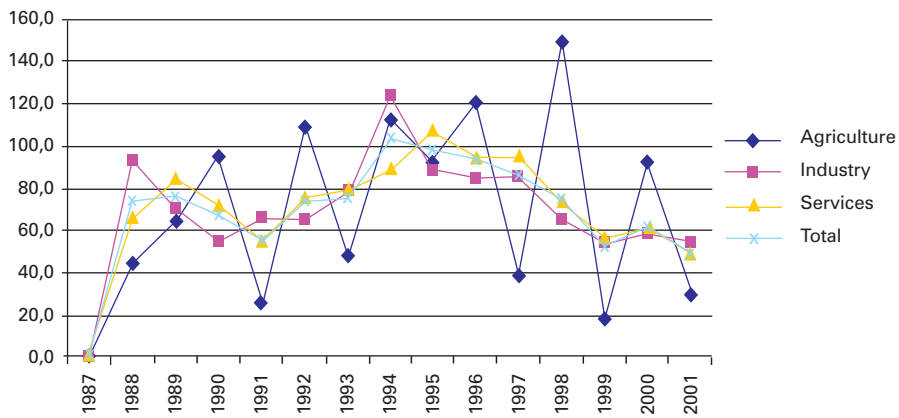


Figure 16: Change in GDP Growth Rate in İzmir Province as per Economic Activity Branches (%)

¹³ In Figures 15 and 16, construction sub-sector is defined within industry sector and trade sub-sector is defined within services sector.

When the change happened within sectoral employment between years 2004 and 2008 is considered, it is observed that the employment amount within industry and agriculture sectors has declined while this value has increased for services sector. The reason of that is the services sector of İzmir providing service also to Aegean Region and other provinces around İzmir.

TR33 Level 2 territories within Aegean Region, İzmir is the industry and services centre for Aegean Region. It is observed that the other territories neighbouring İzmir maintain their agricultural characteristics. Considering the situation based on provinces, it is seen that İzmir maintains concentration in industry and services sector while the other provinces concentrate mostly on industry and agriculture sectors as İzmir hinterland (Figure 18-19).

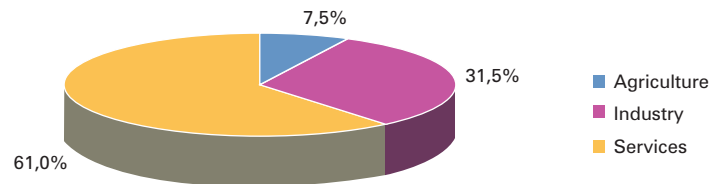


Figure 17: Sectoral Employment Ratios in İzmir as of 2008 (%)¹⁴

Table 10: Sectoral Concentrations in İzmir by Years¹⁵

Sector/Year	2004	2005	2006	2007	2008
Agriculture	0,59	0,61	0,64	0,39	0,32
Industry	1,44	1,38	1,23	1,16	1,18
Services	1,09	1,04	1,08	1,20	1,23

Taking Turkey as reference base, the sector with highest Location Quotient (LQ) in İzmir happened to be the services sector as of 2008, followed respectively by industry and agriculture sectors. During the 2004-2008 period, the LQ has decreased in agriculture and industry sectors while no increase happened for services sector (Table 10).

According to 2008 data, a 47% portion of all employees in services and industry sectors within Aegean Region are employed in İzmir. The ratio of employed people within agriculture is 13.7%. Compared to TR32 and

Although İzmir emerges dominantly as a province of industry and services sectors at national and regional scales, it is also seen that there are also several districts of İzmir where agriculture sector is concentrated within. Among 18 out of 28 districts of İzmir that were included within analysis have concentrated agriculture sectors.

Analysing the issue province based, it is seen that in districts far from İzmir Centrum at province periphery, agriculture sector maintains its concentration. In districts near Centrum perimeter, industry and

¹⁴ Prepared based on data of TÜİK Year 2008 Household Workforce Surveys.

¹⁵ Concentration Coefficient = (Sector's Employment Within İzmir / İzmir Overall Employment) / (Sector's Employment Within Turkey / Turkey Overall Employment)

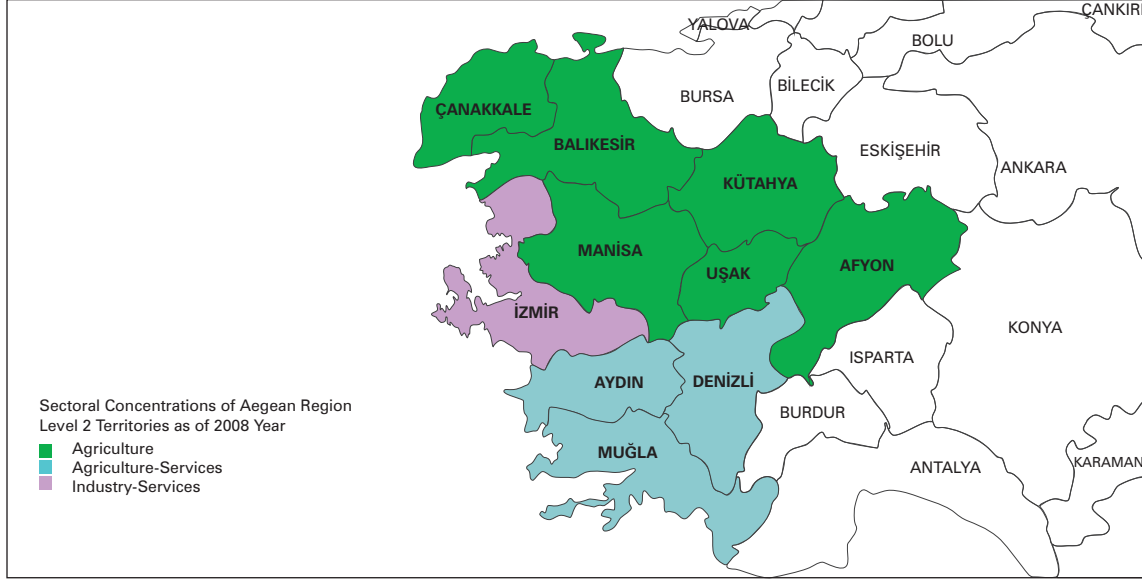


Figure 18: Sectoral Concentrations of Aegean Region NUTS 2 Territories as of 2008 Year¹⁶

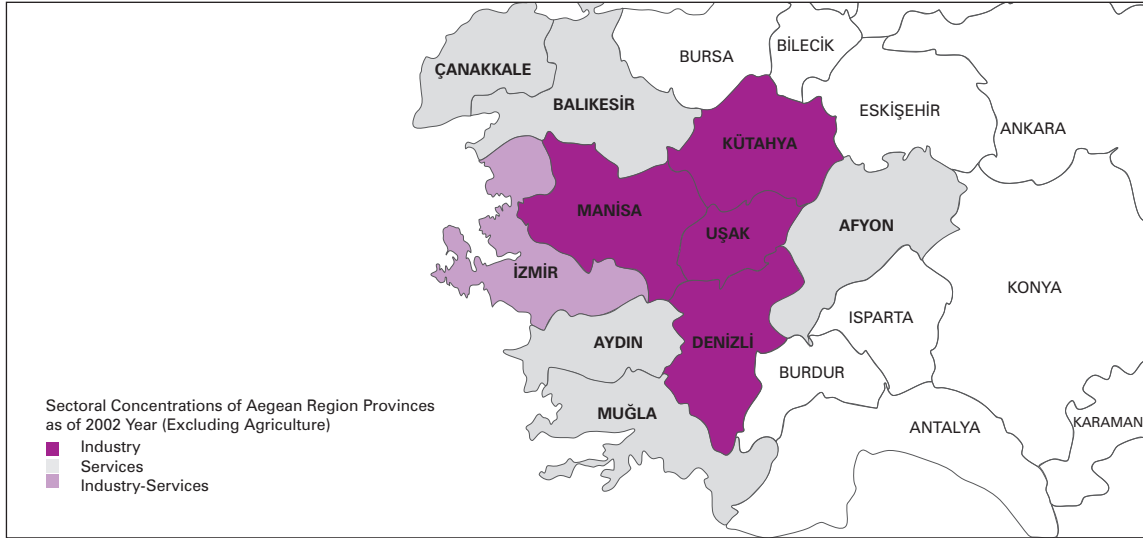


Figure 19: Sectoral Concentrations of Aegean Region Provinces as of 2002 Year (Excluding Agriculture)¹⁷

agriculture sectors maintain concentration, while in coastal districts agriculture and services sectors gain dominance. In Dikili, Bergama, Kınık districts at northern axes, and in Bayındır, Tire, Ödemiş, Kiraz and Beydağ districts within Ödemiş basin, it may be seen

that the concentration in agriculture sector exceeds the concentration of industry and services sectors. The districts at İzmir province centre on the other hand, are concentrated in industry and especially services sectors (Figure 20).

¹⁶ Prepared as per the concentration coefficients result calculated based on data of TÜİK Year 2008 Household Workforce Surveys.

¹⁷ Prepared as per the concentration coefficients result calculated based on data of TÜİK 2000 Year General Industry and Workplace Census.

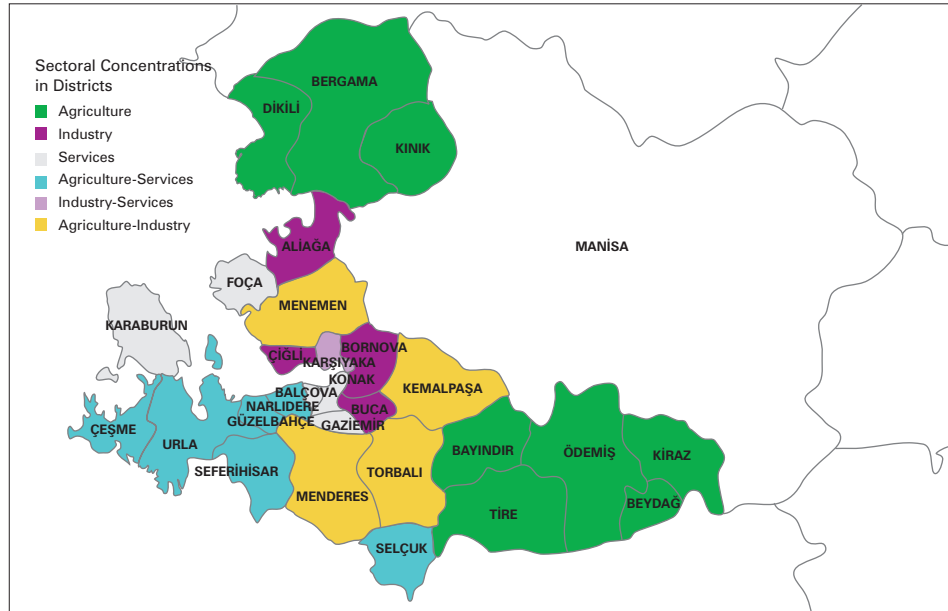


Figure 20: Sectoral Concentrations in Districts¹⁸

3.a.3. Investments towards İzmir

Considering the course of the share İzmir receives from public investments in Turkey during the last 10 years, a

trend towards declining may be observed. While the share of İzmir was 4.82% as of 1999, this value has almost halved, declining to 2.44%. And in year 2007, the value declined down to 1.99% (Figure 21).

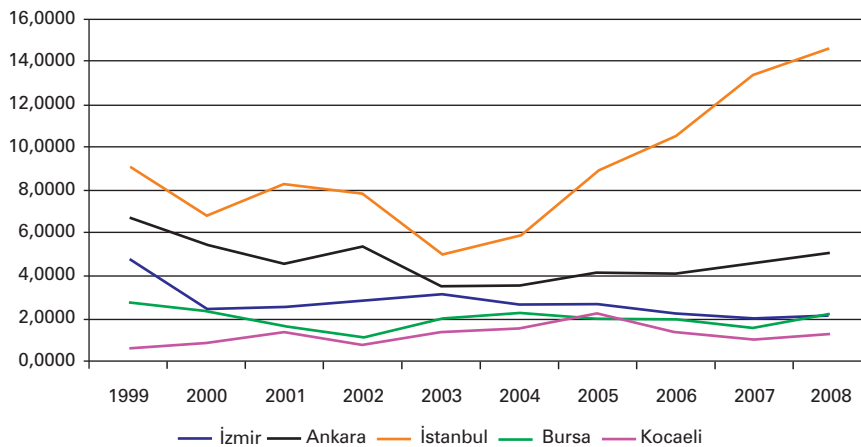


Figure 21: The Share of Public Investments Received by Some Given Provinces (%)¹⁹

¹⁸ Prepared as per the concentration coefficients result calculated based on data of TÜİK 2000 Year General Census.

¹⁹ DPT Public Investment data utilized.

During the last 10 years, as the contribution of İzmir province within overall tax collection increased, the share received from public investments constantly decreased. The inequality of this situation gradually increased, and in year 2008 the tax income collected from İzmir equalled 5 times the amount of public investments İzmir received. The increase in this ratio constitutes a disadvantage for the development of İzmir. Housing 5.3% of total Turkey population, İzmir transferred resources equal to twice its population to country general, while not benefitting from public resources proportionate to even half of its population (Figure 22).

Considering the distribution of public investments in İzmir province, it is seen that these investments are spent more towards transportation and communication sector and manufacturing sector. Following these, sectors receiving the most public investment are education, health and agriculture sectors. Public investments made on tourism sector are at very low levels (Figure 23).

Regarding the number of international capital companies, cities housing the highest number of companies are İstanbul, Antalya, Ankara, Muğla and İzmir respectively. In İzmir, international capital companies function most within wholesale and retail

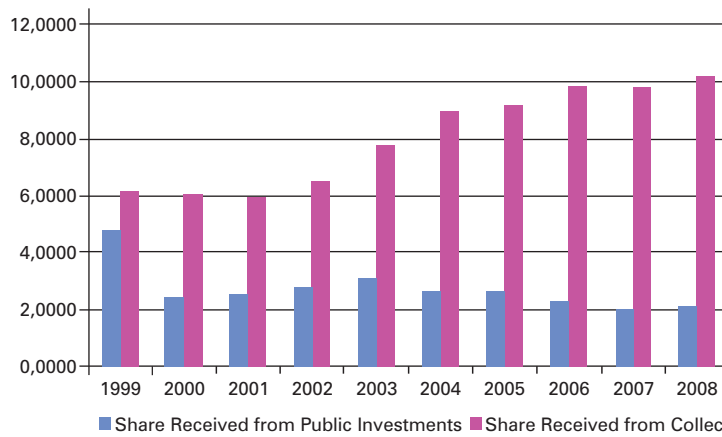


Figure 22: Share Received by İzmir from Public Investments and Share in Collected Tax Income (%)²⁰

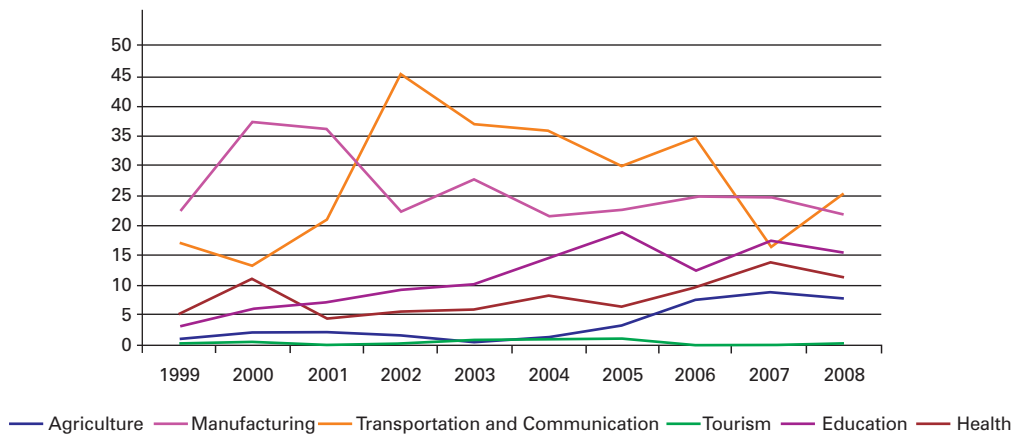


Figure 23: Distribution of Public Investments within Main Sectors in İzmir²¹

²⁰ Ministry of finance data and DPT data utilized.

²¹ DPT Public Investments data utilized

trading and manufacturing industry sectors. Analysing manufacturing industry sub-sectors, it may be observed that these companies function most often within food products and beverage production, chemical substance

and product production, machinery and equipment production, textile product production, and motor land vehicle, trailer, semitrailer manufacturing sectors²² (Undersecretariat of Treasury, 2009).

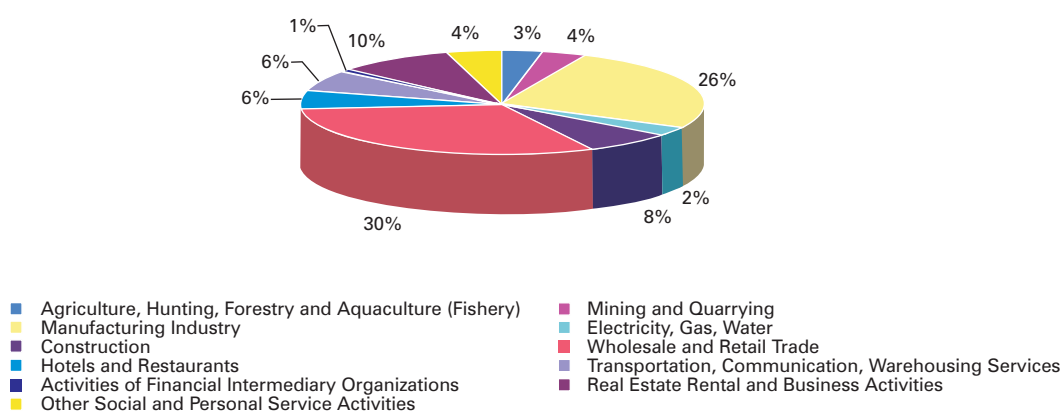


Figure 24: Sectoral Distribution of International Capital Companies in İzmir²³

Table 11: Sectoral Distribution of International Capital Companies within Provinces They Function (1954-2008)

Sectors	İstanbul	Antalya	Ankara	Muğla	İzmir
Agriculture, Hunting, Forestry and Aquaculture (Fishery)	84	66	22	16	42
Mining and Quarrying	144	19	76	7	46
Manufacturing Industry	2.211	161	216	35	328
Food Products and Beverage Production	175	25	19	5	45
Textile Product Production	285	5	9	4	25
Chemical Substance and Product Production	283	16	13	1	32
Manufacture of Machinery and Equipment n.e.c.	190	2	25	1	32
Motor Land Vehicle, Trailer, Semitrailer Production	87	0	10	0	13
Other Manufacturing	1.191	113	140	25	181
Electricity, Gas, Water	182	14	87	1	24
Construction	634	574	157	203	96
Wholesale and Retail Trade	4.092	349	390	86	384
Hotels and Restaurants	490	487	69	261	71
Transportation, Communication, Warehousing Services	1.089	256	66	140	80
Activities of Financial Intermediary Organizations	236	8	7	7	9
Real Estate Rental and Business Activities	1.700	676	215	463	121
Other Social and Personal Service Activities	671	115	105	41	
TOTAL	11.533	2.725	1.410	1.260	1.256

Reference: Undersecretariat of Treasury, 2009

²² see Annexes, Table 10.

²³ Undersecretariat of Treasury data utilized

3.a.4. Technology and Innovation Capacity of İzmir

As a city housing 7 universities, İzmir has the science and technology infrastructure and human capital, and is the second territory with the most concentrated industry in Turkey. With 17 OIZs of which 6 are currently functional, İzmir also is the province with the highest number of OIZs within the country. Thus, İzmir has the necessary capacities for science and technology to develop and the technology to progress into products with high added value.

With the steps taken during the recent years, studies towards developing the university-industry cooperation in İzmir has begun. İzmir Technology Development Area has been established and has begun functioning some years ago. In İzmir, organizations working towards developing the university-industry cooperation and coordination besides the Technology Development Area are the technology centres within EÜ and DEÜ, and the Ege University Science and Technology (Application and Research) Centre (EBİLTEM) functioning under EÜ.

The centre that was established in our region with a fund

supplied from EU in year 2004 with the name of IRC-EGE under EBİLTEM has won the award of most successful technology transfer centre with the technology transfers it made within year 2008 among 71 centres in 33 different countries. This centre shall maintain activity as Ege Business and Innovation Centre (EBIC-EGE) from the beginning of 2008 to 2013. IRC-EGE and its successor EBIC-EGE have realized the establishment of 84 technical and commercial collaborations between Turkish and European companies, in result of the services provided to SMEs at 14 different provinces within our region. It is known that 37 of these have been transferred by SMEs of our region to EU countries. And this indicates that the enterprises in our country, if guided and supported, are able to display a performance at the level of developed countries.

Regarding the number of applications İzmir made to the Turkish Patent Institute (TPE); it is seen that trademark applications have increased by 86%, patent applications by 230%, utility model applications by 128% and industrial design applications by 35% as of year 2008 compared to year 2002 (TPE, 2009).

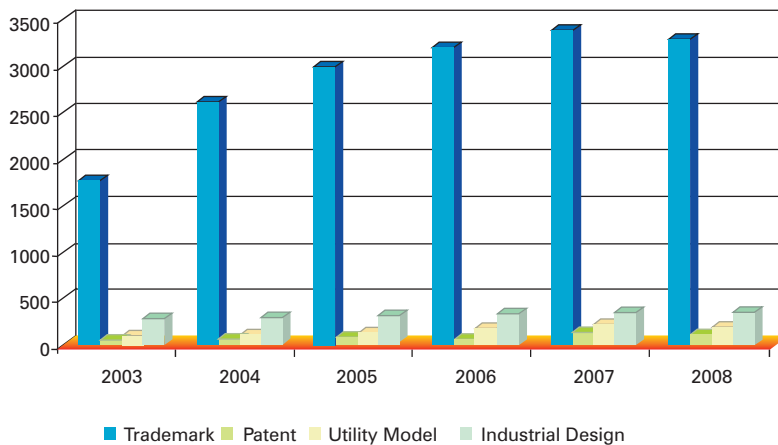


Figure 25: Trademark/Patent/Utility Model/Industrial Design Applications in İzmir²⁴

²⁴ TPE data utilized

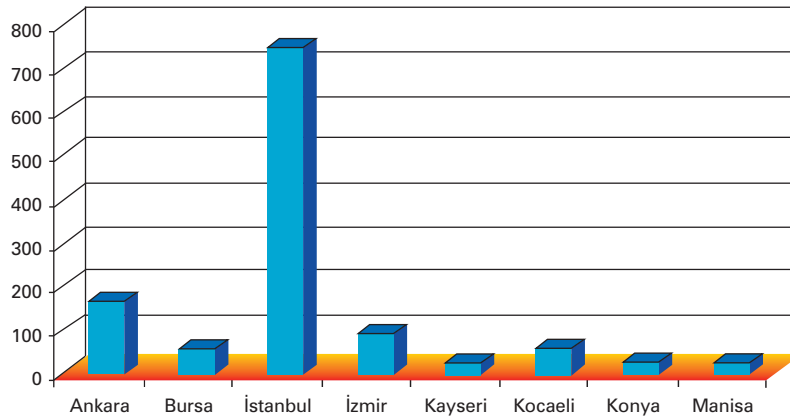


Figure 26: Distribution of the Number of Patents within 1995-2008 Period ²⁵

Regarding the total patent numbers between years 1995-2008, İzmir ranked at 3rd place with 90 patents following İstanbul (741 patents) and Ankara (165 patents). Kocaeli that has 58 patents and Bursa that has 56 patents are provinces at 4th and 5th ranks regarding the number of patents.

Despite being a province possessing science and technology infrastructure and open to innovation, performance of İzmir regarding benefitting from financial grants related to R&D is not sufficiently high. Regarding provinces getting highest support from

R&D grants given to companies between 1995-2008 years by TÜBİTAK and Undersecretariat of Foreign Trade (DTM), it is seen that İzmir comes at 5th rank following İstanbul, Ankara, Kocaeli and Bursa. Benefitting ratio of Manisa province is at a level very close to İzmir. The rate of benefitting from R&D supports being low among the companies in İzmir which is the second province with the most concentrated industry points out to the fact that the companies are in need of being informed and guided regarding supports.

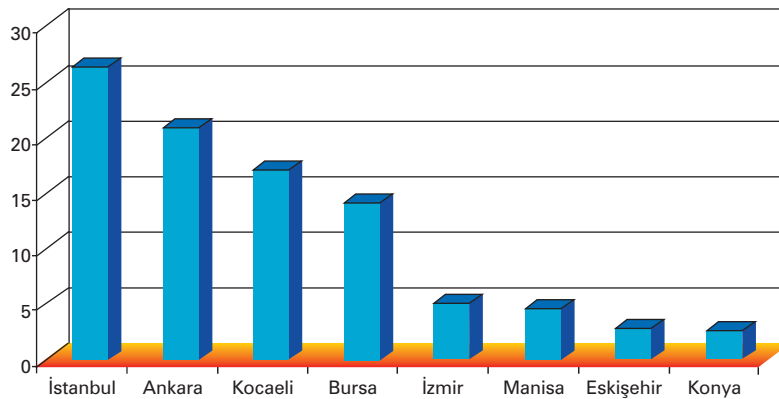


Figure 27: 8 Provinces Receiving the Highest Shares from R&D Grants Given to Companies by TÜBİTAK and DTM within 1995-2008 Period ²⁶

²⁵ TPE data utilized

²⁶ TÜBİTAK data utilized

3.b. Agriculture Sector

İzmir possesses 1.4% of the total agricultural area in Turkey and is the 28th province regarding the size of agricultural territories possessed (TÜİK, 2007). Of the total 12,012,000 decare (da) acreage of the province; 30.5% is agriculture field, 10.1% is plains and pasture, 40.8% is forests and scrubs, and 18.6% is non-agricultural territory. Considering that the values given in the Ministry of Agriculture and Regional Affairs (TKB) data for these territory acreage ratios are 33.2%, 18.7%, 26.4% and 21.7% respectively for entire Turkey (TKB, 2006), it is observed that the forested area within the province is considerably high and plains and pasture area is low compared to Turkey average.

According to 2001 General Agriculture Census results, there is a total of 2,731,986 da agricultural field and 73,856 agricultural establishment in the province of İzmir. The provincial average establishment size is 37 da, while this value is given as approximately 60 da for Turkey average in the same study (DİE, 2001). In a study conducted by TKB, the threshold values of farms in Turkey conditions are given as 4 da for vegetables, 10 da for fruits and 1 da for greenhouses. The fact that the average establishment size in İzmir is below Turkey general, while not preventing these establishments from profiting (TKB, 2007a), increases production costs.

According to 2007 values, 4.6% of the Turkey total agricultural production value that is constituted by the sum of plant-based (plant) production value, animal-based (animal) production value and livestock value has been produced in İzmir province (TÜİK, 2008). According to TÜİK 2008 data, 23.7% of total Turkey employment has been within agriculture sector while this value has been 7.5% for İzmir.

Of the total agricultural zone within province borders; 40.6% is used for cultivating fruits, beverage and spice plants, 11.5% for vegetable gardens, 47.1% for cereals and other plant products. When İzmir and Turkey values are compared by their ratios, it is seen that the fruit and vegetable area of İzmir is larger while Turkey has a larger area used instead for cereal and other plant products. While 17.0% of countrywide agricultural zones are fallowed, in İzmir this ratio is only 0.9% (İzmir Provincial Directorate of Agriculture, 2007).

62.5% of the province's agricultural establishments make plant and animal-based production, while 35.1% make only plant-based production and 2.4% make only animal-based production. For Turkey overall on the other hand, the ratio of establishments making plant and animal-based production together are 67.4%, and this value is 30.2% for only plant-based production and 2.4% for only animal-based production.

The contribution of the agricultural product value produced in İzmir between 1995-2007 years to Turkey has been at an average annual rate of 4.3% (TÜİK, 2008). Within the total amount of 3,832,521,408 TL agricultural production value realized by 2006 prices, 63% has been acquired from plant-based production, 31.3% from animal-based production and 5.7% from aquaculture production (İzmir Provincial Directorate of Agriculture, 2007).

In Figure 28, the distribution of product groups within total agricultural production income is given. The order of production value has been as follows; fruits, vegetables, field crops, meat, milk, aquaculture fishes, egg and ornamental plants. It is seen that agricultural activities are concentrated throughout İzmir except some of the districts. In all districts except the central districts and Çeşme, Karaburun and Urla districts, a significant portion of the terrain is used for agriculture (İzmir Provincial Directorate of Agriculture, 2007).

9.8% of the province agricultural zones are 1st class, 7.9% are 2nd class, 7.2% are 3rd class and 6% are 4th class agricultural land. The ratio of these lands available for agriculture to total overall acreage is 31%, while this value is 34.1% for Turkey general. In Figure 29, land existence classification per capability by districts is given.

Within İzmir province, approximately half of the agricultural zones are comprised of non-irrigated areas (İzmir Provincial Directorate of Agriculture, 2007). 74.3% of the irrigable zones in the province are being irrigated (TKB, 2006). It is important to complete the infrastructure necessary for irrigating all of the irrigable zones in the province.

Due to a major portion of our water resources being used for agricultural purposes, water as an important agriculture input should be utilized rationally and

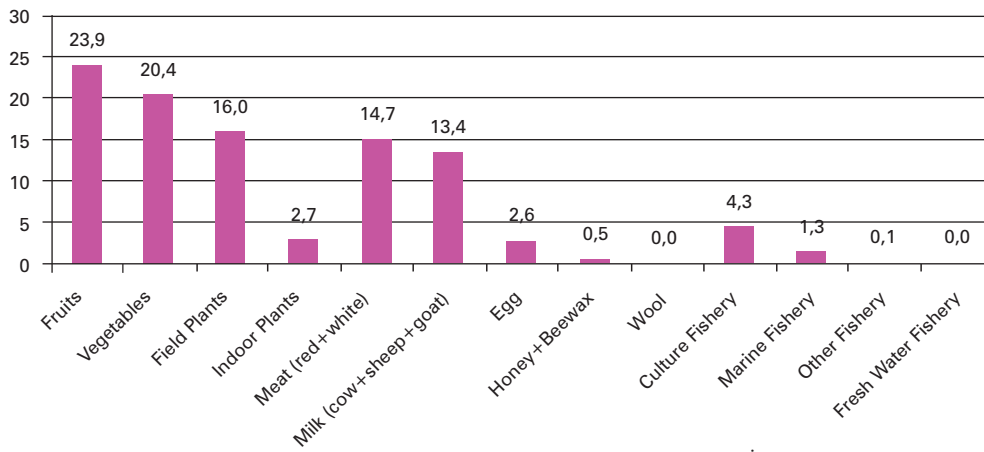


Figure 28: Distribution of Agricultural Production Values in İzmir (%), 2006
Reference: İzmir Provincial Directorate of Agriculture, 2007

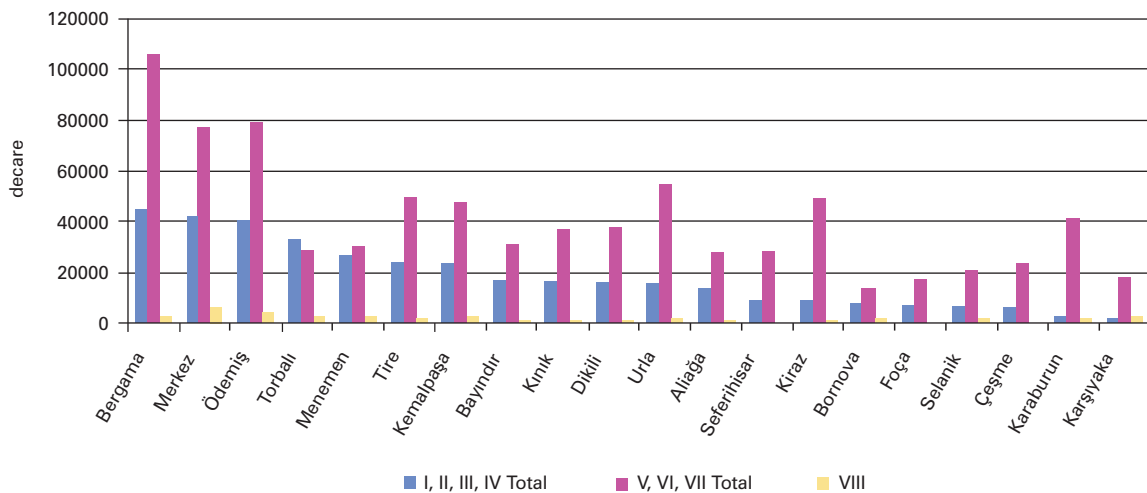


Figure 29: Land Existence of İzmir Districts as per Land Use Capability Class
Reference: General Directorate of Rural Services, 2001

effectively with the aid of drip irrigation and other modern technology use. Currently, 94% of overall irrigation countrywide is done via the traditional flooding irrigation while only 6% is done via modern irrigation techniques. Throughout the world, utilization ratio of modern irrigation systems is 16%. It has been defined in conducted studies that in traditional irrigation, 30-35% of the water can be used by the plant, while this value increases to 90-95% in modern systems. Utilization ratio of modern irrigation is only 8% in İzmir province (Tomar, 2006). Therefore, doing the

field or garden irrigation via pressure (sprinkler and drip) systems reduces irrigation, weed, plant disease and pest combat costs, increases product amount and quality, and play a crucial role in utilizing agricultural zones in a sustainable way.

A total of 298 agricultural purpose cooperatives exist within the province. Although no study related to these cooperatives' performances could be found, it is understood from Provincial Directorate of Agriculture records that 207 cooperatives have held their annual

ordinary general meetings as of the end of year 2008. Number of shareholders within these cooperatives is approximately 29,500. There are 4 cooperative associations in the province, and 182 cooperatives are member of an association related to their field of activity. Within the context of producers associations that constitute yet another type of organization, there are a total of 18 associations and 531 members based on various productions within the province. Considering that there are 53,696 producers registered within the province farmer registration system, it is seen that organization is not yet at the desired level (İzmir Provincial Directorate of Agriculture, 2009). Not acting organized within production and marketing processes renders especially the small scale producers vulnerable against other actors stronger in these processes.

The seedless sultana grapes produced in Kemalpaşa, Menemen, Menderes, Bayındır and Torbalı districts of İzmir, namely “Aegean Sultana Grapes”, cotton produced at all districts of İzmir, namely “Aegean Cotton”, and the yellow soft figs produced in Torbalı, Bayındır, Kiraz, Ödemiş, Tire, Beydağ and Selçuk districts, namely “Aegean Fig” are all geographic registered trademarks under their respective names. “Ödemiş Potato” is also a registered trademark (TPE, 2009).

3.b.1. Plant Based Production

The contribution ratio of plant-based production value acquired in İzmir between 1995-2007 years to the overall plant production value throughout Turkey is calculated to be 4% (TÜİK, 2008). While the ratio of value obtained through plant production made within İzmir province to the overall agricultural production value of İzmir happened to be 63% as of 2006. The rank listing of agricultural production value amounts in 2006 is as follows; fruits (38%), vegetables (32.3%), field crops (25.3%) and ornamental plants (4.3%) (İzmir Provincial Directorate of Agriculture, 2007).

With its climate belt and agricultural suitability, İzmir has concentrated on the cultivation of typical Mediterranean belt fruits (İzmir Provincial Directorate of Agriculture, 2007). The amount of fruits produced in İzmir has been calculated to be at an annual average of 592 thousand tonnes within the period between years 1995-2007, and this amount has constituted 4.3% of the total amount produced throughout the country (TÜİK, 2008). Fruit production constitutes 38% of İzmir province overall plant production value and 23.9% of total agricultural production as per 2006 values. Within the total fruit production that is 917,687,160 TL

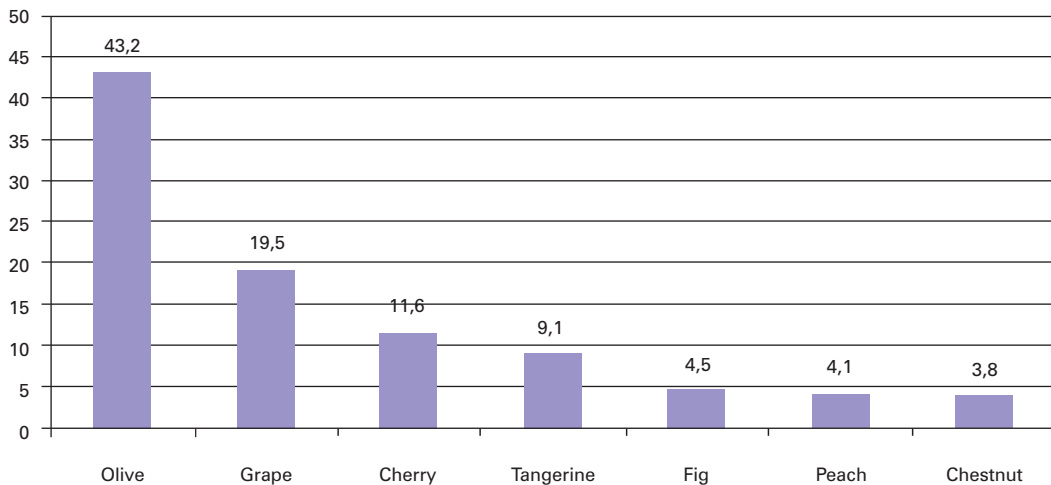


Figure 30: Ratio of Primary Fruits Produced in İzmir to Overall Production Value (%), 2006
Reference: İzmir Provincial Directorate of Agriculture, 2007

according to 2006 prices, 59.7% is constituted by stone fruits, 20.3% by grape-like fruits, 9.2% by citrus fruits, 5% by nuts, 4.7% by subtropical climate fruits and 1.1% by pome fruits (İzmir Provincial Directorate of Agriculture, 2007).

As is seen in Figure 30, the fruit most important for the province regarding production value is olive. 12.4% of the total area covered by olive trees throughout Turkey is in İzmir. Bayındır, Kemalpaşa and Torbalı districts outstand regarding olive production with production ratios of 21.3%, 12.1% and 11.6% respectively. Due to the bearing characteristic of olive called periodicity, significant differences emerge from year to year regarding total product amounts. According to yields realized between 1995-2007 years, the contribution of İzmir to Turkey olive production has been calculated to be at an annual average of 10.7%. Within total production, the share ratio of oil purpose production is 87.8% (TÜİK, 2008).

According to year 2007 values, 3.4% of the countrywide agricultural lands producing grapes exist within İzmir province. Approximately half of this is comprised for raisins production. Cherry production follows grapes cultivation. 90% of cherry cultivation is done within Kemalpaşa district. Tangerine cultivation, almost all comprising of satsuma type, is

also an important activity for the province. Most of satsuma tangerine cultivation is done on Seferihisar (35.1%), Menderes (36.8%) and Selçuk (13.5%) line. Ödemiş (28.9%), Tire (26.6%), Kiraz (12.6%) and Beydağ (11.8%) are the foremost districts regarding fig production amounts (İzmir Provincial Directorate of Agriculture, 2007). İzmir is ranked at the second place in fig cultivation regarding number of fruit trees and production amounts following Aydın (TKB, 2002).

Due to its geographic position and the climatic conditions, İzmir is a province where almost every kind of vegetable can be grown. It may be mentioned that in general, vegetable cultivation in İzmir is done on open terrain, at field conditions, within relatively large lands, by producers and establishments concentrating on this type of product, at better conditions compared to country average and with higher technology. Vegetable cultivation constitutes 32.3% of İzmir plant-based production value and 20.4% of total agricultural production according to 2006 data. It is also calculated according to 2006 year data that a total of approximately 1.67 million tonnes vegetable has been grown on 476,518 da acreage in İzmir province, of which 98% is realized at open land and 2% at greenhouses. Product value of vegetable production equalled to 32.3% of total agricultural production.

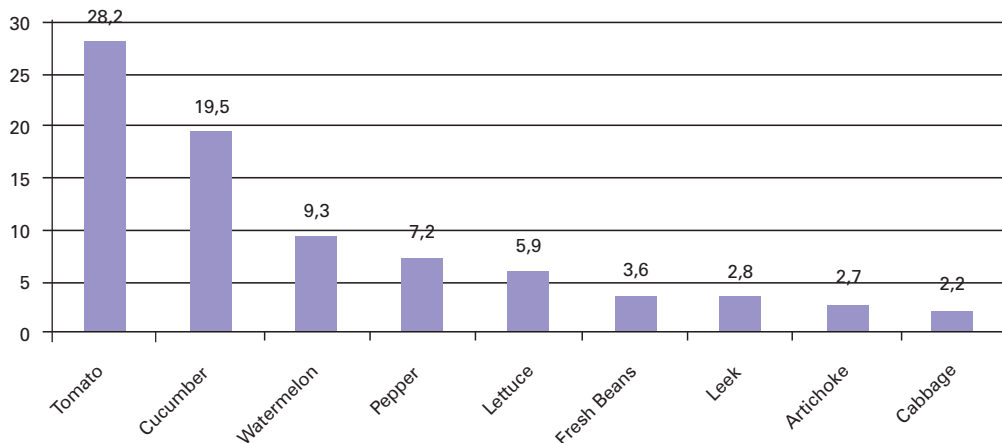


Figure 31: Ratio of Primary Vegetables Produced in İzmir to Overall Production Value (%), 2006
Reference: İzmir Provincial Directorate of Agriculture, 2007

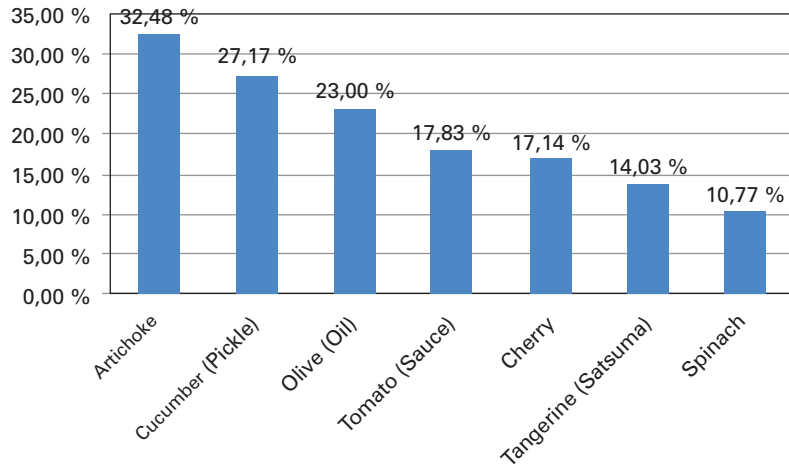


Figure 32: The Ratio of Given Vegetable, Fruit and Other Plant Productions of İzmir within Turkey, 2006
Reference: TÜİK, 2007; İzmir Provincial Directorate of Agriculture, 2007

Distribution of vegetable production value by product types is given in Figure 31. Tomato production, residing at the first place in the list, is comprised of two types, tomato production for paste processing (72.9%) and tomato for table consumption. 32.2% of province total tomato cultivation is done within Torbalı district.

Also, considering the ratio of some fruit and vegetable production within Turkey overall production (Figure 32), İzmir outstands with its share of 32.48% within Turkey overall artichoke production. Having significant importance regarding export, artichoke plant is cultivated especially within Karaburun district (İzmir Provincial Directorate of Agriculture, 2007).

The production in İzmir is concentrated rather upon the production of tomato, eggplant, paprika, cucumber, melon-watermelon etc. that are defined as summer vegetables (seeding-planting at spring, harvest at summer) in general. Although production of winter vegetables such as cabbage, lettuce, spinach, leek (seeding-planting at late summer and autumn, harvest at winter and early spring) is also done, summer vegetable production has considerable dominance regarding area of cultivation, cultivation amounts and production values (İZKA, 2008).

Cold storage elements such as farmer output pre-cooling, transport in cold storage trucks within

province's fresh fruit and vegetable marketing chain, and cooling within province wholesale and retail chain generally do not exist. These inadequacies cause approximately 32% of the vegetables to be spoiled and wasted. Although this value is lower for fruits (3-14%) and nuts (5-24%), they are still at significant levels (TKB, 2007b).

The fact that vegetable and fruit processing facilities are utilized at a countrywide capacity of 34% is yet another problem. Accessing the appropriate quality raw material year long is a considerable problem for industry. The reason of that is the hardware inadequacy of long term cold storage facilities as much as the low level of quality, hygiene and food safety implementations. Most of the existing facilities, especially smaller ones, are not in compliance with EU standards in their current conditions. Also, following the traditionally done fruit drying processes arise some substances such as alpha toxins and okra toxins that may be hazardous to health. Substances such as these also cause losses in export incomes (TKB, 2007b).

Field crops production constitutes 25.4% of İzmir plant-based production value and 16% of overall agricultural production according to 2006 values. Among field crops produced in İzmir province, cereals group has the highest share of 39.2%. Industrial plants (28.3%), forage plants (25.1%) and tuber crops (6.9%) follow cereals. Legumes and

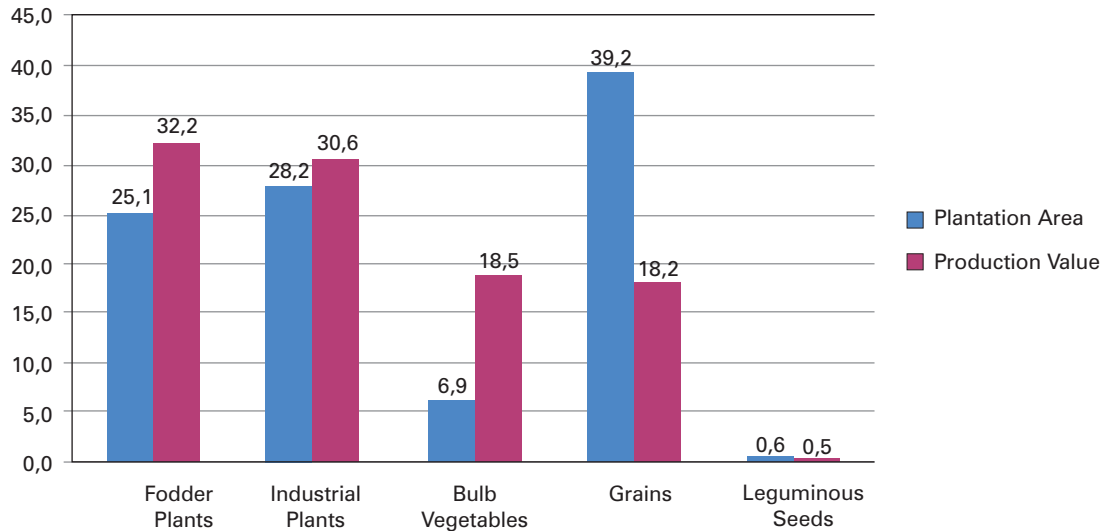


Figure 33: Cultivation Areas and Production Value Ratios of Primary Field Crops Cultivated in İzmir (%), 2006
Reference: İzmir Provincial Directorate of Agriculture, 2007

aromatic plants has very insignificant place within production field with their overall share of 0.6% (İzmir Provincial Directorate of Agriculture, 2007).

It is understood that İzmir concentrates dominantly on the production of some certain products such as cotton, tobacco and corn, bearing the characteristics of these products and product group (area, zone structure, establishment size, applied production technology etc.) within its body (TKB, 2002).

In Figure 33, the cultivation areas and production value ratios of the field crops produced in the province are given. Within the cereal group that ranks at first place, bread wheat has the highest cultivation area with a value of 54.4%, followed by other primarily cultivated cereals, namely barley, corn and durum wheat with cultivation areas changing between 13-15%. Despite consuming the largest area, cereals contributed to overall field crops product value at a ratio of 18.2%.

Industrial plants take up the second place regarding cultivation area with a ratio of 28.2%, contributing 30.6% to overall product value. 82.1% of this group's production is comprised of cotton cultivation. Regarding cultivation areas, Bergama, Menemen, Torbalı and Tire are the foremost districts with ratios of 21.8%, 18.4%, 14.8% and 13.8% respectively. After cotton, tobacco is the product with largest

cultivation area. Oilseed sunflower is also an important product with a 2.3% cultivation area ratio.

The ratio of tuber crops' cultivation area within all field crops has been calculated as 6.9%. In spite of its relatively small cultivation area, contribution to product value has been 18.5%. 95.9% of this group's cultivation is comprised of potato. With a cultivation area of 77%, Ödemiş district comes foremost regarding this product's cultivation.

Forage plants constitute 25% of field crops' overall cultivation area, and one third of the production value. This situation is considerably important for livestock activities within the province. 77% of forage plants' cultivation is taken up by corn silage.

İzmir takes the 3rd place within countrywide provinces regarding overall ornamental plant cultivation area with a ratio value of 12.5%. Regarding total greenhouse ornamental plant cultivation area, the province ranks 2nd with a 29.6% share, following Antalya (TKB, 2006).

In general overview, the plant-based production in the province displays a better overall picture compared to country average. However, similar to country general, chronic problems in agricultural structure such as lands of agricultural establishments being small and divided, organized action culture not

having been developed enough, and lack of adequate capital and knowledge decrease the efficiency level of establishments and weaken the hands of producers during marketing stage.

3.b.2 Animal Based Production

The contribution ratio of the animal-based production realized in İzmir has been calculated to be 6.2% within overall country production as of 2007. The contribution of the animal production value obtained between 1995-2007 years to Turkey's relevant overall production value has been at an annual average of 5.1%. In Figure 34, distribution of İzmir animal production value is given as per year 2006.

sheep a decline equal to 11.6% has been experienced in İzmir and 24.6% throughout İzmir. In that same period, a decrease of 31% has been experienced within Turkey goat assets, while in İzmir a small increase equal to 1.2% has happened (TÜİK, 2008).

Constituting 94.3% of the province milk production, cow milk takes up 39.2% of overall animal-based production value. According to 2007 data, the ratio of province cow milk production to the countrywide production equals to 4.6%. Between 1995-2007 years, an increase of 57.5% has been experienced in İzmir regarding cow milk production while this value was 21.6% for Turkey in the same period (TÜİK, 2008).

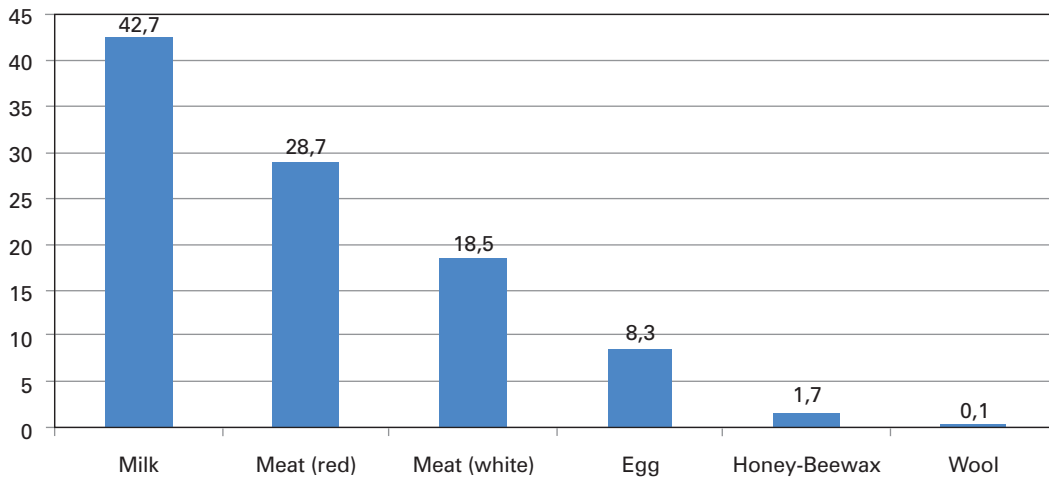


Figure 34: Distribution of Animal Production Values in İzmir (%), 2006
Reference: İzmir Provincial Directorate of Agriculture, 2007

According to 2007 data, the agricultural establishments in İzmir possess 3.3% of Turkey overall cattle assets (370 thousand heads), 1.7% of sheep assets (425 thousand heads) and 3% of goat assets (191 thousand heads) (TÜİK, 2008). 58.8% of the province cattle asset is comprised of culture breed, 33% comprised of culture hybrid and 8.2% comprised of indigenous animals (İzmir Provincial Directorate of Agriculture, 2007). Within the period between 2004-2007 years, the increase experienced in number of cattle assets has happened to be 39.9% in İzmir and 9.6% throughout Turkey. Regarding

Similar to the increase in cow milk, the increase in red meat production that happened in İzmir (58.4%) between years 1995-2007 has been higher than the same value for overall Turkey (38.6%). As of year 2007, the red meat produced in İzmir constituted 7.7% of the amount produced throughout the country (TÜİK, 2008). 82.8% of the red meat produced in the province has been beef, and 16.5% has been lamb as of year 2006. The provincial animal-based production value is constituted 24.5% by beef and 4.1% by lamb (İzmir Provincial Directorate of Agriculture, 2007).

White meat production is also an important and developing branch of animal-based production in İzmir. Between 1995-2007 years, white meat production throughout Turkey has increased by 290% while the increase rate has been 595.4% for İzmir. As of 1995, white meat production of İzmir met 5.6% of overall Turkey production while this ratio has been calculated as 10% for year 2007 (TÜİK, 2008).

According to 2006 data, 8.3% of animal-based production has been provided from egg production. Regarding 2007 values, 5.6% of the overall amount of eggs produced throughout Turkey has been produced in İzmir. Within the period encompassing 1995-2007 years, an increase of 23.9% has been experienced in overall number of eggs within country production, while in İzmir a decline equal to 8.9% has been noted. The decrease seen is both proportional and absolute (TÜİK, 2008).

The districts outstanding regarding cattle asset which constituted almost all of İzmir province 2006 year bovine livestock asset are Ödemiş, Tire, Kiraz, Bayındır and Bergama districts respectively. Foremost districts regarding ovine livestock asset on the other hand are Bergama, Dikili, Ödemiş, Menemen and Kiraz. The districts outstanding among others regarding poultry production are Kemalpaşa, Bergama, Foça, Torbalı, Urla and Aliaga (İzmir Provincial Directorate of Agriculture, 2007).

Livestock breeding activities of İzmir reflects a better image compared to country general especially due to the relative abundance of areas given to forage plants. Strengthening this structure and preparing it to stand foreign competition is of crucial importance. In 1998, Turkey has given commitment for annual import amount equal to 19,000 tonnes of red meat and 3,000 tonnes of feeder livestock to EU, but this import has not been authorized due to bovine spongiform encephalopathy disease. This issue has been given place in the 2008 Annual Progress Report as was in the progress reports issued for previous years (ABGS, 2008). Realizing this commitment in the current conditions will leave especially the small scale enterprises in a dire position.

In order to construct a strong animal-based production structure; the current divided land structure should be resolved, pastures should be managed well and their quality should be increased, novel technologies should be implemented within production, and investments towards the sector should be supported. Moreover, educating the farmers and farmer organizations under subjects such as animal welfare, hygiene, quality feed and forage plants is yet another important issue to be handled for strengthening this production structure.

3.b.3. Aquaculture

Fishing is an important sector regarding the added value created, and İzmir comes at 4th place in this issue following Trabzon, Muğla and İstanbul throughout Turkey (TKB, 2006). Aquaculture is a significant and always actual field for İzmir. Fish farming is a sub-sector that constantly develops in our country just like throughout the world.

Aegean Region is the region of highest aquaculture production in Turkey. 39.8% all aquaculture processing facilities in Turkey reside within Aegean Region (TKB, 2007). 25% of all marine fish farmed (sea bream, sea bass) within our country are produced in İzmir. It is observed that there is a trend towards increase regarding the number of marine fish farming enterprises in İzmir in the last 20 years.

Approximately half of the aquaculture production realized within İzmir in 2006 has been obtained through culture fish farming. Within these products, sea bass is at first place regarding production value with a ratio of 37.7% (İzmir Provincial Directorate of Agriculture, 2007). As of 19th of February 2009, 70 out of 349 marine enterprises within Turkey are situated in İzmir. Likewise, 8 out of 17 marine hatcheries throughout the country are established in İzmir (TKB, 2009).

Regarding aquaculture hunting, no study specific to İzmir could be acquired. In a study conducted in context of Aegean Region, it is indicated that with excess hunting the hunt amounts are constantly on the rise and sustainable fishing principles are drifting

away, while there are no scientific data related to stock amounts available for hunting. Furthermore, it has been found out that organization acts are limited only to utilization of selling spaces, cooperative co-decision and auto-control mechanisms cannot be executed, supervision institutions' personnel and authorities are inadequate, and sanctions are not deterrent (TEAE, 2008). Developing the acts of organization in a wider scope and more depth would play an important role regarding convenience in input supply, storage and marketing along with providing the abovementioned data, realizing necessary auto-control and establishing effective communication with relevant institutions.

3.b.4. Forestry

In İzmir where the mountainous regions are mostly forested, a total of 492,966 ha forest and scrub dominated area exist, and this amount equals to 40.8% of overall province area. Considering this ratio is 27.2% for Turkey, it is observed that the forested regions of İzmir are relatively in abundance. Regarding forest productivity however, while 48% of Turkey forests are considered productive, the ratio of productive forests in İzmir is 17%. Although the ratio of forested regions is high, İzmir is significantly below Turkey average regarding productive forest area (Ministry of Environment and Forestry, 2006). Wood products prominent in İzmir province are fibre chip wood, pulpwood and industrial wood. Aside from these, pine nut is another important economic product.

Within the province, there are 197 villages within forests and 345 villages adjacent forests. A total of 246 thousand people dwell in these villages (ORKÖY, 2009) Low income forest villages constitute the poorest and least developed segment in Turkey socioeconomically. Limited sources of income and high unemployment ratios of the villages accelerate the emigration to urban regions. Forest villagers do not have land of adequate size to provide for themselves. While these lands, which are actually not suitable for agriculture, should be used for forest and pasture purposes, they are instead utilized towards economic activities such as agriculture, settlement, tourism, mining and quarrying (TKB, 2007). Forming Saanen breed herds instead of the existing domestic goat population that is a serious threat against forest existence

would provide the producers with better economical conditions along with preserving the forests. It is also expected that marketing the indigenous food products produced in compliance to hygiene rules such as cheese and other dairy products via rural tourism would play an important role for development of forest villagers and preservation of forests.

3.b.5. Organic Agriculture and Good Agricultural Practices

Organic agriculture in Turkey has started with the European firms requesting organic product from our country for the expanding market in 1984-1985 production season. First organic productions have been realized in Aegean Region with dried grapes and figs that are among our traditional export products. Later on, products such as dried apricot, nut and pistachio followed and spread on to different regions (Er and Başalma, 2008).

The ratio of organic agricultural areas to total agricultural areas in İzmir is above both that of Turkey and Aegean Region. This value is 0.54% in Turkey and 1.63% in Aegean Region while it is found out to be 7.65% in İzmir. According to TÜİK data, a total 19,058 tonnes of organic products have been produced in İzmir on 26,330 ha area by 1,294 producers as of 2007. The number of product types produced in context of organic agricultural activities within year 2007 is 83. These values constitute 19.5% of country total regarding overall area and 12.3% regarding number of farmers (TÜİK, 2008).

7 out of 13 organic agriculture and certification institutions authorized by TKB are in İzmir (TKB, 2009a). Most of the ecologic product processing facilities are situated in İzmir and most of the products are exported from İzmir Harbour (İzmir Provincial Directorate of Agriculture, 2007).

With the observation of adverse effects hazardous to natural balance and human health resulting from the utilization of more and more artificial inputs for increasing efficiency in agriculture, the interest towards organic agriculture has increased. This increased interest creates both domestic and foreign markets for organic products, and also reflects upon the supports towards

this production and legal texts. For instance, it has been made legally mandatory for only organic products to be used in the food produced for babies between 0-2 years age in the USA and under 6 years age in Germany (Er and Bařalma, 2008). It is planned to convert 40% of total agricultural zones to organic agriculture in EU countries within a given period of 2005-2010. Sweden has issued the law declaring 10% of the agricultural lands to be converted to organic agriculture. It is thought that similar implementations shall begin in our country at medium term. Furthermore, the increase observed in the awareness levels of consumers will increase the domestic demand towards organic products. Therefore, the issue of organic agriculture bears importance for İzmir agriculture and producers as much as overall agriculture of Turkey.

Other than organic agriculture, the Good Agricultural Practices (GAP) is another important means to eliminate the constantly increasing concerns regarding food safety. While no chemicals are used in organic agriculture, chemicals such as fertilizers and disinfectants are utilized in GAP at restricted doses. GAP, defined as realizing the agricultural production in a controlled, tracked way sensitive to environment and human health at every level from the field to consumers, is being implemented since a long time ago in İzmir, which exports agricultural products. Prevention of uncontrolled chemical use in products and the obligation of residue analysis make it convenient for products to reach foreign markets with the GAP system

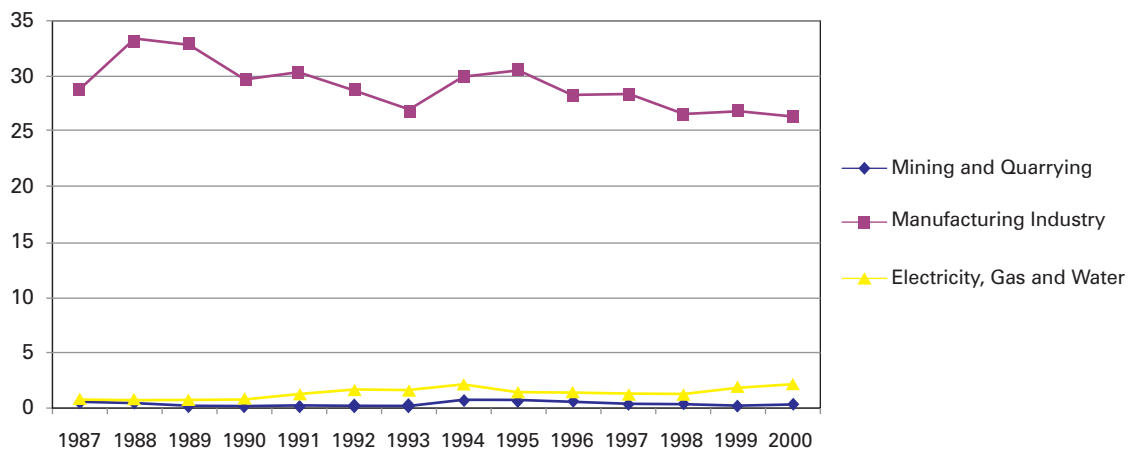
that started as Eurepgap and currently maintained as Globalgap.

In İzmir, a total of 131 producers have made production within GAP context on 2,584 da area within 3 producer groups and 11 individual applications. Suitability of climate and other production-related conditions in İzmir, the accumulated experience in the field, existence of the faculty of agriculture and research institutes, the public and private sector institutions related to foreign trade, and its strong civil society structure display the potential in this field. Aside from national scale practices; planning and studies to be conducted at local scale regarding the issue shall aid in this potential being transformed into maximal benefit (İzmir Provincial Directorate of Agriculture, 2009).

3.c. Industry Sector

It is seen that during the passing years, industry sector has always maintained its significance for the TR31 İzmir territory regarding both GDP (Figure 15) and employment (Figure 17). When İzmir is compared to the neighbouring provinces and Aegean Region, it is observed that industry sector comes prominent also regarding concentration. In this study, industry sector has been analysed under the three main titles of manufacturing industry, mining and energy.

Contribution of year 2001 industry sector²⁷ to İzmir GDP has been 4,167 million TL. This contribution of



Şekil 35: GDP Contribution Changes of Industry Sectors

²⁷ Construction sub-sector has been excluded from industry sector.

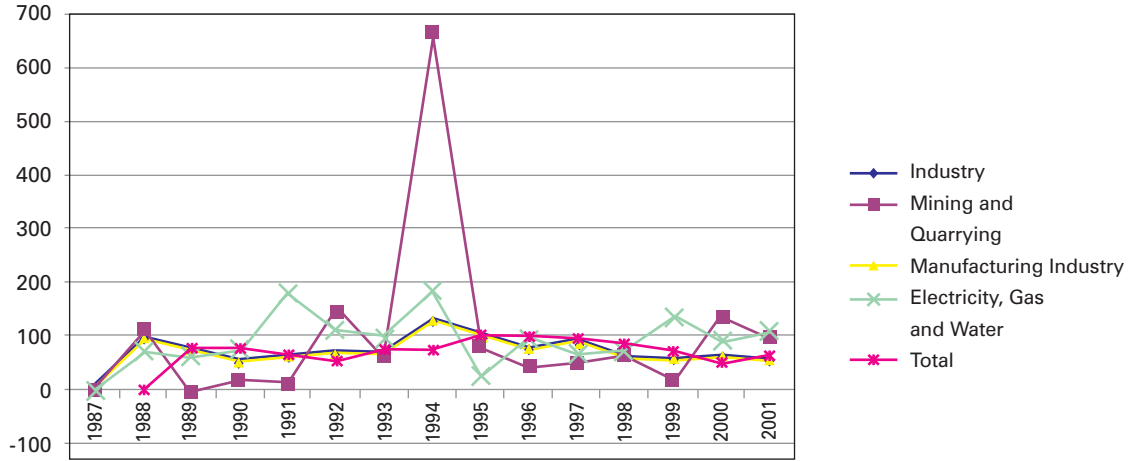


Figure 36: Change of Development Rates in Industry Sectors' GDP (%)

industry sector, which has a 31.1% share within total İzmir GDP, is mainly based on manufacturing industry with a value of 27.5%. Considering the change of sectors' GDP shares, it may be mentioned that a slight decline has been experienced in manufacturing sector, while a slight increase is seen in electricity, gas and water sectors, and mining sector has a share that can be defined as stagnant (Figure 35). Regarding the development rates of sectors, it is observed that manufacturing industry displayed a structure similar to İzmir GDP development rate, while electricity, gas and water sectors and mining and quarrying sectors have different development rates (Figure 36). A certain increase is being experienced by years regarding the development of the industry sector in İzmir. Following İstanbul and

Kocaeli, İzmir is the 3rd province concerning GDP increase (Figure 37). Also, when the sectoral shares are examined regarding their contribution to GDP during 1999-2001 years, it may be mentioned that the contribution of industry sector has constantly increased in Kocaeli, Manisa and Bursa. It may be said that in İzmir too, while not as much as those provinces, sector's contribution to GDP has experienced a smaller scale increase.

According to 2006 TÜİK data, total number of people employed in industry sector is 375 thousand. Regarding the sub-distribution of total employment within industry sectors as of year 2004, it is seen that 37% of the employees work in manufacturing sector while 1%

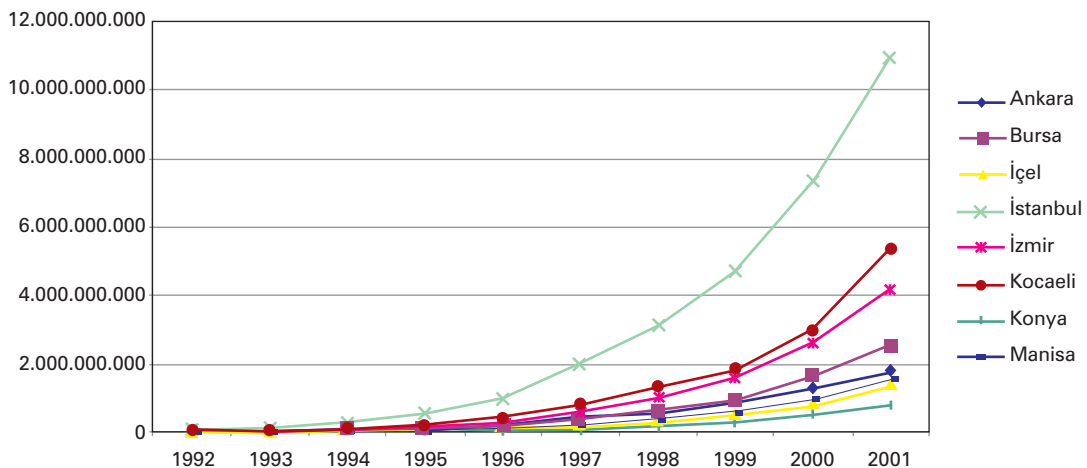


Figure 37: GDP Change by Years

Table 12: Industry Sector Concentrations in İzmir by Years²⁸

	Employment	Mining and Quarrying	Manufacturing Industry	Electricity, Gas, Water
2003	İzmir	2.668	169.617	102.296
	Aegean Region	20.484	338.774	15.489
	Turkey	74.886	2.163.683	5.322
	Location Quotient	0,50	1,10	0,73
2004	İzmir	4.034	197.775	4.025
	Aegean Region		379.607	13.009
	Turkey	81.085	2.393.016	99.521
	Location Quotient	0,70	1,17	0,57

work in mining and quarrying sectors and electricity, gas, waterworks sectors. According to concentration coefficients calculated via 2003 and 2004 TÜİK Structural Business Statistics, the only sector within İzmir industry sector that experiences concentration is manufacturing sector (Table 12).

According to 2004 year data, the number of enterprises within İzmir industry sector is 135,544. 17% of these enterprises function in manufacturing industry, while 1% function in mining and quarrying sectors and electricity, gas, waterworks sectors. Analysing the change in the number of enterprises between 2002-2007 years, it may be said that there is an increase that may be assumed constant (Figure 38). Within the

period covering 2002-2007 years, manufacturing industry sector in İzmir has experienced an increase above that of Turkey regarding the number of enterprises. In mining and quarrying sectors on the other hand, only during 2004-2005 years an increase above that of Turkey has been experienced. During the other years, an increase below Turkey has been experienced in this sector and the electricity, gas, water sector.

According to 2007 year TÜİK foreign trade data, it is seen that 96% of entire export volume result from industry sector. İzmir meets a 60.4% portion of the export within Aegean Region, and its ratio within Turkey is found to be 5%. Meanwhile, İstanbul has a

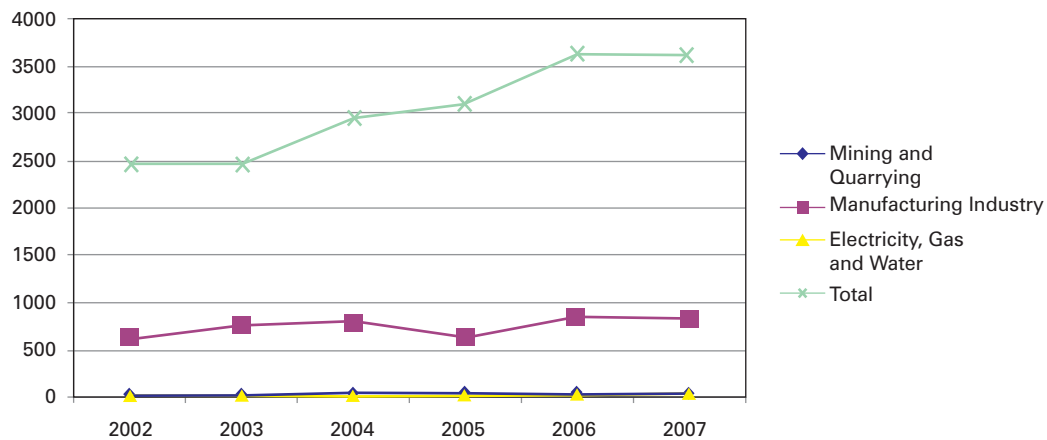


Figure 38: Number of Firms Established in Industry Sector by Years and by Sector

²⁸ TÜİK 2003-2004 Structural Business Statistics

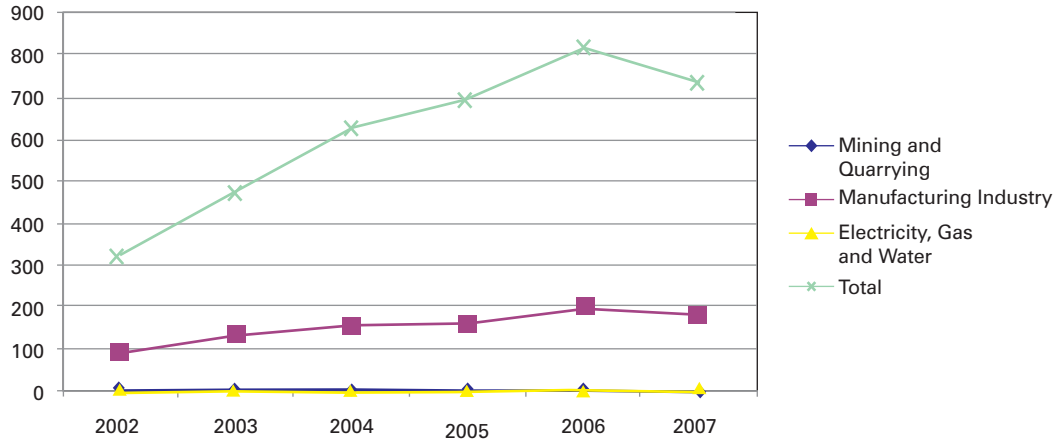


Figure 39: Number of Firms Dissolved in Industry Sector by Years and by Sector

share ratio of 56.8% within Turkey's overall export amount. Regarding the export amount changes in the industry sectors of İzmir, Aegean Region and Bursa, Manisa, Konya, Mersin, Ankara provinces, between 2002-2007 years, it is observed that Bursa takes up the second place with the highest share following İstanbul. As of 2006 and 2007 years, it is seen that Kocaeli also had a greater export amount compared to İzmir (Figure 40). According to 2007 year TÜİK export data, 98% of the export done within industry in both İzmir and

throughout Turkey is observed to be realized in manufacturing industry sector. 87% of total export and 86% of total import results from manufacturing industry.

The investment done towards industry sector within İzmir is 102,917 thousand TL as of 2008. The share İzmir gets from overall public investments granted to industry sector within Turkey is 2.86%. Within the public investments done to İzmir, the sector in question

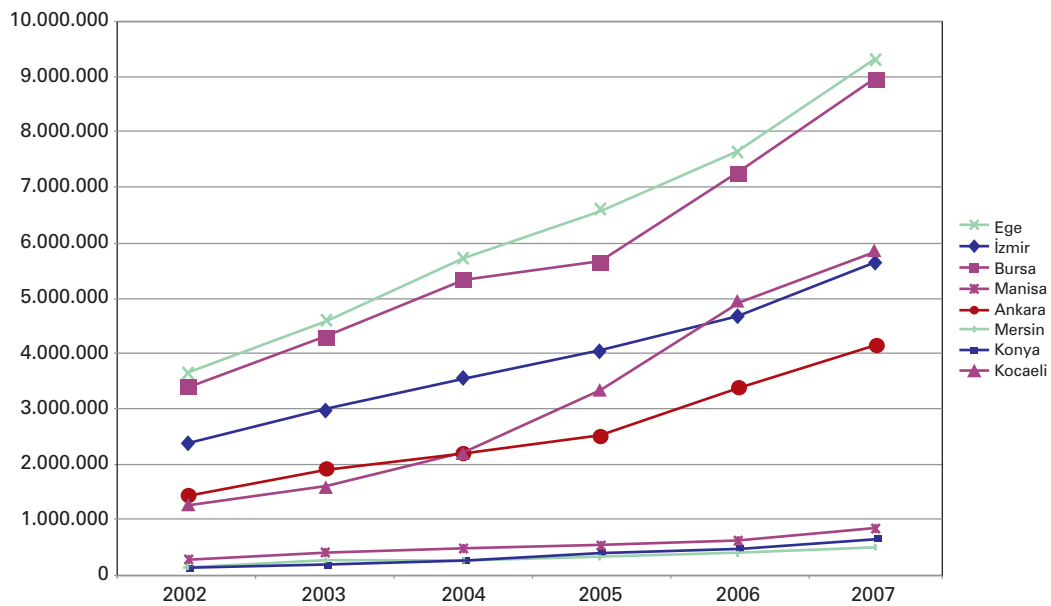


Figure 40: Industry Sector Export Changes
Reference: TÜİK 2002-2007 Foreign Trade Data

has a share of 22.16%. 21.75% of this investment share has been realized in manufacturing sector, while a 0.41% portion has been realized in mining and quarrying sector. When the industry investments in İzmir are analyzed in respect to years, it is seen that the investment amount did not change much during the last seven years. Meanwhile, the industry investment amounts in İstanbul and Ankara have displayed increases during the period between 2002-2008 years.

A district-based analysis shows that industry sector is concentrated in the central districts of Aliğa, Bornova, Karşıyaka, Çiğli, Buca in addition to Menemen, Kemalpaşa, Torbalı and Menderes districts where it shares concentration with agriculture sector.

3.c.1. Manufacturing Industry²⁹

3.c.1.a. Manufacturing Industry Throughout İzmir

According to year 2004 TÜİK data, approximately 96% of all industry employees work in manufacturing sector in İzmir. When manufacturing sector is analysed

based on main sectors according to the data in year 2002 TÜİK General Industry and Workplace Census (GIWC), the prominent sectors are; textile and textile products manufacturing with 29.78% ratio, food products, beverages and tobacco production with 18.19% ratio. Meanwhile, according to the ratios within Turkey manufacturing industry, the sector with highest share ratio is coking coal, refined petrol products and nuclear fuel production with 10.33% value, followed by food products, beverages and tobacco manufacturing by 9.64%, leather and leather products manufacturing by 9.31%, wood pulp, paper and paper products manufacturing, printing and publishing by 8.16%; and plastic and rubber products manufacturing by 8.11%.

Examining the change of employment within these sectors between 1980-2001 years in regards to TÜİK annual manufacturing industry data, it is observed that certain increases have occurred in the employments within textiles, clothing and leather industry³⁰, metal equipments, machinery and apparatus, transportation vehicles, scientific and professional tools manufacturing³¹ and chemicals-petrol, coal, rubber and

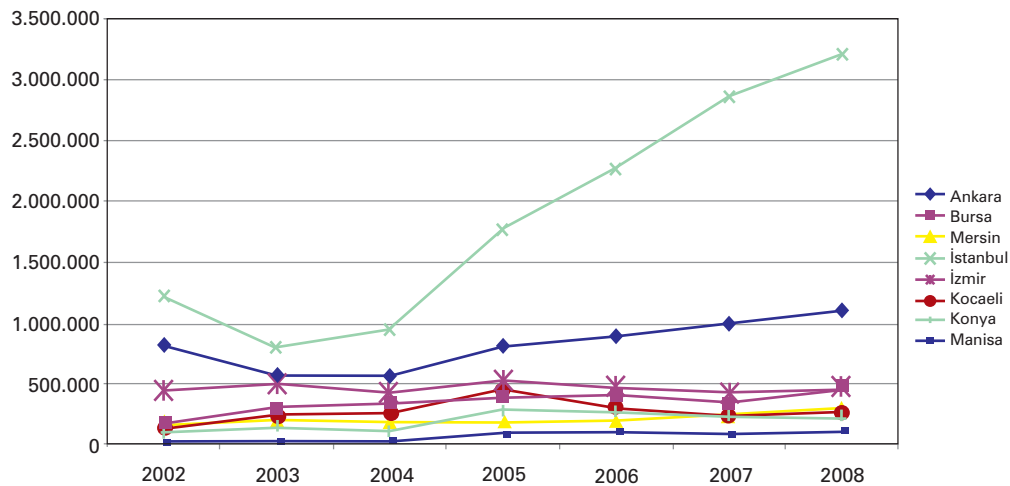


Figure 41: Change of Public Investments in Provinces by Years

²⁹ Manufacturing Industry data compiled according to 1980-2001 ISIC Rev 2. classification, compiled according to Annual Manufacturing Industry Statistics and NACE Rev 1.1. classification by using General Industry and Workplace Census data.

³⁰ According to NACE Rev 1.1. classification, DB-textiles and textile products manufacturing, DC-leather and leather products manufacturing sectors are equivalent to the 32 - textiles, clothing and leather industry sector classification of ISIC Rev.2.

³¹ According to NACE Rev 1.1. classification, DJ-base metal and fabrication metal products manufacturing, DK-machinery and apparatus, DL-electrical and optical hardware manufacturing, DM-transportation vehicles manufacturing are equivalent to the 38 Metal equipment-machinery apparatus, transportation vehicle, scientific and professional tools manufacturing classification of ISIC Rev.2.

plastic products industry³². However, food, beverages and tobacco industry have experienced an employment decline equal to approximately 30% (Figure 42).

Analyzing the number of enterprises according to year 2002 TÜİK data, textiles and textile products manufacturing emerges as the prominent sector with the highest number of enterprises. This sector is

followed by base metal and fabrication metal products manufacturing sector, and food products, beverages and tobacco production sectors respectively. Regarding the change in the number of enterprises between 1980-2001 years, it is seen that there is a certain decline within the food products, beverages and tobacco industry sector (Figure 43).

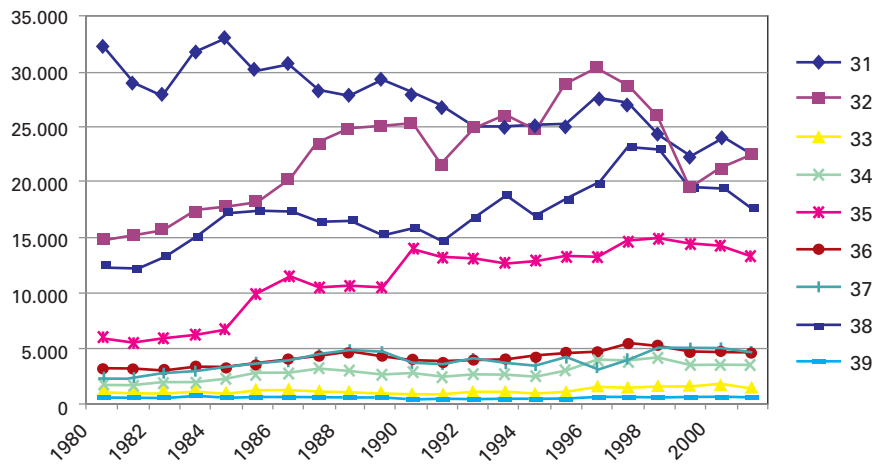


Figure 42: Change of Employment in Manufacturing Industry by Years³³

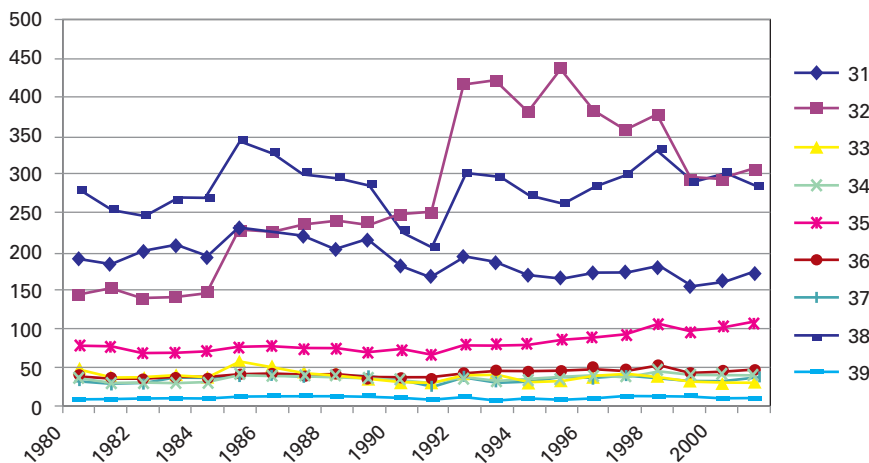


Figure 43: Change in Number of Enterprises within Manufacturing Industry by Years

³² According to NACE Rev 1.1. classification, DF-coking coal, refined petrol products and nuclear fuel production, DG-chemical substance and products and artificial fibre production, DH-plastic and rubber products manufacturing are equivalent to the 35 chemicals-petrol, coal, rubber and plastic products industry classification of ISIC Rev.2.

³³ Codes and distribution of sectors according to ISIC Rev. 2 classification- 31 Food, beverages and tobacco industry; 32 Textiles, clothing and leather industry; 33 Forestry products and furniture industry; 34 Paper-Paper products and printing industry; 36 Stone and earth based industry; 37 Basic metal industries; 38 - Metal equipment-machinery apparatus, transportation vehicle, scientific and professional tools manufacturing; 39 Other manufacturing industry.

The two foremost sectors regarding highest contribution to overall added value of İzmir manufacturing industry are the chemicals, petrol, coal, rubber and plastic products industry and the food products, beverages and tobacco production industry. Among these sectors, chemicals industry sector constitutes approximately 47% and food industry sector constitutes 31% of the added value. It is seen that these two sectors has the highest share also regarding added value per capita (Figure 44).

Manufacturing industry has been handled as per their LQ within four essential groups based on both main

mentioned sectors, LQ values displayed increase during 1992-2002 years. Food products, beverages and tobacco production, and coking coal, refined petrol products and nuclear fuel production are the developing star sectors of İzmir within manufacturing industry main sectors basis. Another star sector is leather and leather products manufacturing but a decline has occurred for this sector's concentration throughout time. Within manufacturing sub-sectors basis, we see medical tools, sensitive and optical tools and watch manufacturing, recycling, wood pulp, paper and paper products manufacturing as developing star sectors. Flash sectors are food products and beverages production, clothing manufacturing, fur

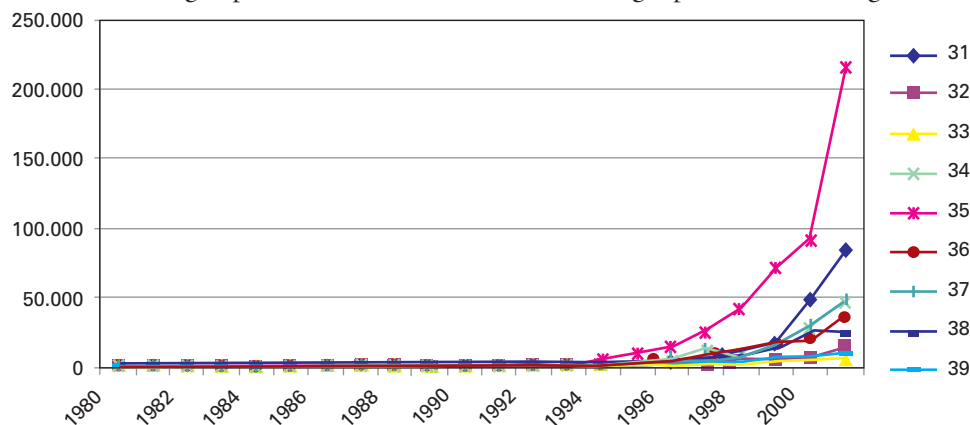


Figure 44: Added Value per Employment within Manufacturing Industry

sectors and sub-sectors. These groups are given as follows:

- Developing Star Sectors Sectors with LQ value above 1.25 and the value increasing through 1992-2002 years
- Star Sectors Sectors with LQ value above 1.25 but the concentration decreasing through 1992-2002 years
- Flash Sectors Sectors with LQ value below 1.25 but the value surpassing 1.25 through 1992-2002 years
- Fading Sectors Sectors with LQ value dropping below 1.25 through 1992-2002 years.

9 out of 14 main manufacturing sectors defined as per NACE Rev 1.1. classification in İzmir are at concentrated ($LQ > 1$) state. However, there are only three of these sectors in İzmir that have LQ above 1.25. These are food products, beverages and tobacco production; coking coal, refined petrol products and nuclear fuel production; and leather and leather products manufacturing sectors. In the first two

processing and dyeing, coking coal, refined petrol products and nuclear fuel production, and office machinery and computer manufacturing. Star sectors, on the other hand, are leather tanning and processing, luggage, handbag, saddlery, harness manufacturing, shoemaking, and motor land vehicle, trailer, semitrailer production (Figure 46).

Analysed in depth with more than one variable (Table 13), it may be seen that some developing star sectors and flash sectors, namely medical tools, sensitive and optical tools and watch manufacturing, clothing manufacturing, fur processing and dyeing, food products and beverages production, and office machinery and computer manufacturing displayed increase in most of these variables. In conclusion, it may be mentioned that some manufacturing industry groups that are agriculture based industries and high-tech industries are on the rise.

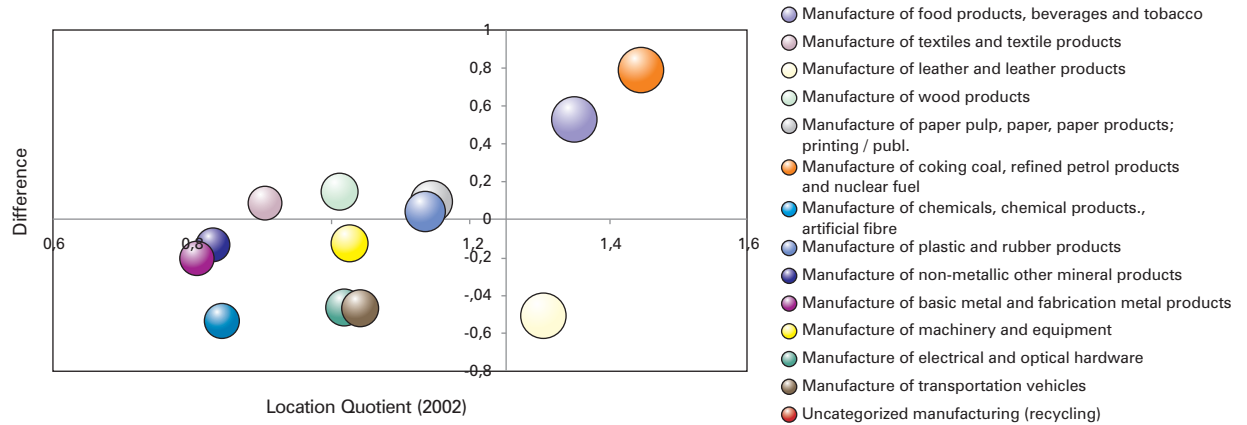


Figure 45: Sectoral Concentrations and Concentration Differences Based on Manufacturing Industry Main Sectors

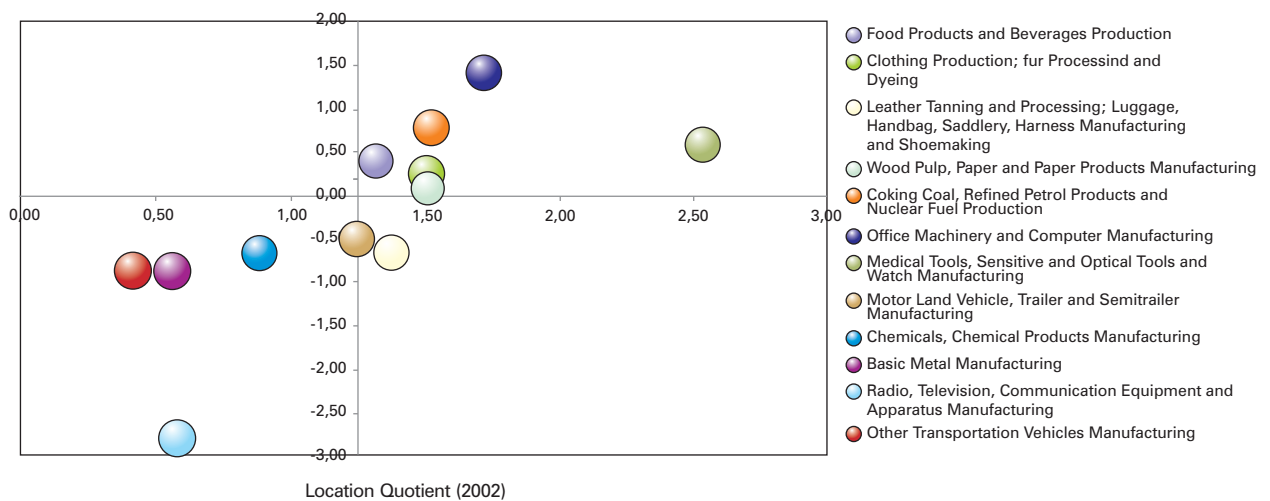


Figure 46: Concentrations and Concentration Differences Based on Manufacturing Industry Sub-Sectors³⁴

³⁴ Tobacco Production

Table 13: Assessment of Manufacturing Industry Sectors Under Various Variables, 2002

SECTOR NAME	Developing Star Sectors	Flash Sectors	Sectors in Which Companies is on the Rise	Sectors of Which Export Share within Turkey is on the Rise	Sectors of Which Export Amount is on the Rise	Sectors of Which Export/Import Ratio is on the Rise	Sectors Having High Technology Level According to OECD Technology Scale	Sectors Having Above 10% Share Throughout Turkey Regarding Trademark Patents	Sectors Having Above 10% Share Throughout Turkey Regarding Industrial Design Patents	Sectors Having Creative Industry Features
Food Products and Beverages Production										
Clothing Production; fur processing and Dyeing										
Leather Tanning and processing; Luggage, Handbag, saddlery, Harness Manufacturing and Shoemaking										
Wood Pulp, Paper and Paper Products Manufacturing										
Coking Coal, Refined Petrol Products and Nuclear Fuel Production										
Office Machinery and Computer Manufacturing										
Recycling										
Medical Tools, Sensitive and Optical Tools and Watch Manufacturing										
Motor Land Vehicle, Trailer and Semitrailer Manufacturing										
Tobacco Products Production										

3.c.1.b. Manufacturing Industry at District Scale

Districts concentrated in manufacturing industry are, as mentioned previously; Bornova, Çiğli, Gaziemir, Menderes, Menemen, Kemalpaşa, Torbalı and Tire (Figure 47).

Food, beverages and tobacco industry is observed to be

2001 years. Although there does not seem to be a concentration in Menemen, the food industry situated at İTOB OIZ may have an effect on this increase. Regarding the changes in added value of the sectors between years 1996 and 2001, it strikes attention that there are increases in Buca, Karşıyaka, Menderes, Menemen, Ödemiş and Torbalı districts. In Bornova, Karşıyaka and Çiğli districts which all house flash

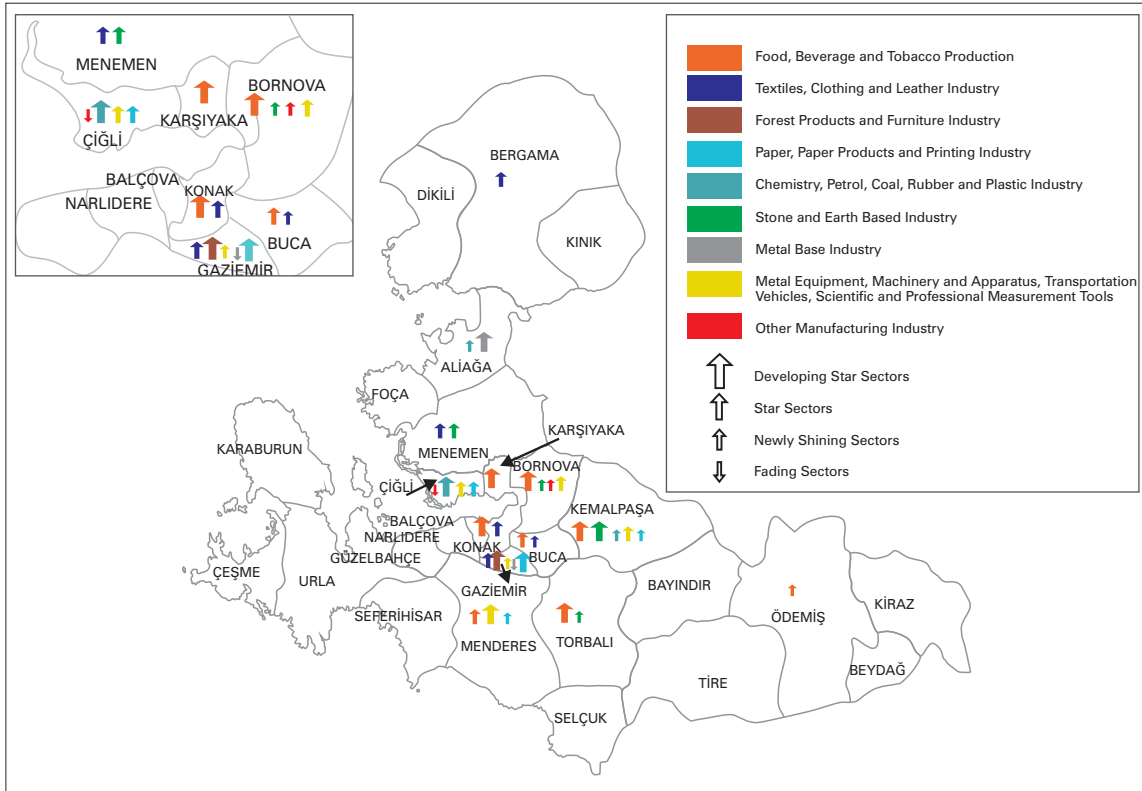


Figure 47: Concentrations and Concentration Differences of Manufacturing Industry Sectors within Districts

outstanding as the star sector developing in the highest number of districts at İzmir general. According to 2001 TÜİK data, sectors of this group in Konak, Karşıyaka, Bornova, Kemalpaşa and Torbalı districts are developing star sectors. While Ödemiş is a flash district in this sector, Buca is seen as a fading one. Regarding number of companies, we observe an agglomeration in this sector. OIZs in Çiğli, Kemalpaşa and Ödemiş may be factors in the agglomeration of these sectors. Regarding added value increases in the sector, it can be seen that an increase occurred in Buca, Karşıyaka, Menderes, Menemen, Ödemiş and Torbalı between 1996 and

sectors, a certain decrease is mentionable in terms of added value.

Textiles, clothing and leather industry emerges as a sector that is concentrated while having a decreasing concentration in terms of districts. In Buca, textiles, clothing and leather industry is found out as a flash sector. The highest number of units and employment in this sector are seen in Konak, Çiğli, Bornova and Buca districts, though Bornova does not have a high concentration of this sector within the general sectoral structure of the district. Sectoral agglomeration in Buca

district has increased even more with the Buca Clothing and Organized Industry Zone established in year 2002. Likewise, the OIZ in Bergama district, the İDESBAŞ Menemen Free Zone in Menemen district, and the Aegean Free Zone situated in Gaziemir district are effective for these districts' concentration in this sector. Regarding the change in added value, it is observed that among all districts having flash sectors, only Buca district increased its share within added value while the remaining ones had decreasing values. Other districts that display increase in added value ratio without any sector concentration are Çiğli, Tire and Torbalı.

In Gaziemir district, forest products and furniture industry emerges as a developing star sector. The furniture manufacturers situated especially in Gaziemir and Karabağlar districts is the reason of that agglomeration in the sector. And Çiğli, while lacking sector concentration, is ranked within the second group in terms of highest number of companies and employment amounts. Analyzing the changes in added value, it is seen that the added value share of Çiğli district is on the rise while Gaziemir declines in that regard. Another district that has increasing added value ratio in the sector is Torbalı.

Regarding paper, paper products and printing industry, the sector is seen as a developing star in Gaziemir, while the sectors in Kemalpaşa and Menderes are found out as flash sectors. The district having the highest employment amount in the sector is Kemalpaşa. Bornova district, despite being the second district that has the most employment, is not concentrated in the sector. Districts that have increasing added value regarding the sector are Bornova, Çiğli, Gaziemir, Kemalpaşa and Menderes.

The sectors in the three districts, where chemicals, petrol, coal, rubber and plastic products industry have LQ higher than 1.25, are found out as developing stars. PETKİM in Aliğa district causes the sector to be found concentrated despite the number of local units being low. On the other hand, another factor may be the companies in chemicals sector being situated within Aliğa OIZs. Likewise, plastic industry companies being situated in Çiğli especially within Atatürk OIZ and chemicals industry companies being situated in Kemalpaşa district OIZ may be the reasons of

concentration results found in these districts. Bornova district, despite having the second place in regard to employment and number of local units, does not seem concentrated in this sector within the analysis results. Regarding changes in added value ratios, it is observed that this value has increased in Çiğli, Kemalpaşa and Torbalı districts. It is meaningful to emphasize that this sector in Aliğa district had a contribution ratio within Turkey overall added value equal to 21.20%.

Stone and earth related industry (Manufacture of non-metallic mineral products except products of petroleum and coal) is found as a developing star sector in Kemalpaşa district, while Menemen displays a flash and Torbalı displays a fading sector. Districts having the highest employment within sector are Bornova, Kemalpaşa and Torbalı.

Aliğa district is observed to have a basic metal industry displaying developing star sector characteristics. The companies functioning within metal industries sector that are situated in Aliğa OIZ may be the factor to that concentration. In Aliğa, the sector employs a total of 3,386 people and houses 10 companies. As can be seen from the average number of employees, these enterprises can be said to be large scale companies. Despite being the second largest employment centre regarding the sector and housing approximately the same number of companies, the sector is not found out to be concentrated within this district. Regarding the change in added value ratios, the only district experiencing increase happens to be Aliğa district.

Regarding metal equipments, machinery and apparatus, transportation vehicles, scientific and professional measurement tools industry (manufacture of fabricated metal products), the sector in Menderes district is found out as a flash sector with a gradually increasing CC. Bornova district on the other hand, strikes attention with the highest values regarding employment and number of local units.

3.c.1.c. Organized Industrial Zones

A total of 219 OIZs have been put into service (completely and partially) in our country since 1962, that cover a total of 56,070 hectare land. 46 out of all OIZs that have been put into service are situated within

8 provinces of Aegean Region (Afyon, Aydın, Denizli, İzmir, Kütahya, Manisa, Muğla, Uşak). These OIZs that take up a total of 11,680 hectare land are ranked at third place in this regard with a ratio of 20.83% following Central Anatolia (24.74%) and Marmara (22.27%) Regions (İzmir Provincial Directorate of Industry and Commerce, October 2007).

There are 2 OIZs in İzmir that have been put into service completely, namely Atatürk OIZ (İAOSB) and Aliğa OIZ (ALOSBİ). Meanwhile, 4 OIZs have been partially put into service that are namely Buca-Ege Clothing OIZ (BEGOS), İzmir Commerce Organized Industry Zone (İTOB), Kemalpaşa OIZ (KOSBİ), and Tire OIZ (TOSBİ). 11 other OIZs are under construction (Bayındır, Bergama, Kemalpaşa-Tevsii, Kınık, Menemen-Plastic, Ödemiş, Pancar, Torbalı-I OIZs) and it is planned to put them into service within a short time.

In result of the analysis of the answers given to the survey conducted by İZKA on February 2009 together with the administrations of 6 OIZs that have been put into complete or partial service, and the İAOSB establishment numbers, it is observed that most of the

enterprises of which 458 reside within İAOSB. Regarding the sectoral distribution of employment in OIZs outside of İAOSB, it is seen that manufacturing industry has a dominating percentage of 94.1%. Following this sector, the electricity, gas, vapour and hot water generation and distribution sector (2.2%), construction sector (1.5%) and transportation, storage and communication (1.2%) sector employs the highest number of people in İzmir.

Free zones, which supply a modern and developed investment environment due to their flexible and actual administrative structures to the companies that aim towards foreign trade along with the contributions provided to the national economy they reside in, also increase their significance as logistic centres similar to OIZs.

Since 1987, many free zones have been put into service in our country fundamentally for the purpose of supporting and encouraging the investment and production towards export. These Free Zones may be listed as follows; 3 zones at Mediterranean coast (Mersin, Antalya and Adana-Yumurtalık Free Zones), 3 zones within Aegean Region (Aegean (İzmir), Denizli

Table 14: Sectoral Distribution in OIZs (İTOB-ALOSBİ-KOSBİ-BEGOS-TOSBİ)

Sectors	Number of Enterprises	Employment	Number of Enterprises with Sewerage System	Wastewater Treatment Plant (WWTP) Status		
				Existing	Pre-Treatment	Connected to Main WWTP
Mining and quarrying	2	57	2	0	0	2
Manufacturing	314	21.716	106	28	5	103
Electricity, Gas, Vapour and Hot Water Generation and Distribution	9	478	1	0	0	1
Construction	27	391	11	4	0	23
Wholesale and Retail Trade; Motor Vehicle, Motorcycle, Personal and Household Commodities Repair	15	50	0	0	0	0
Transportation, Storage and Communication	10	250	0	0	0	0
Other	8	102	8	0	0	8
TOTAL	385	23.044	128	0	0	137

Reference: February 2009 İZKA OIZ Survey Results

establishments (98%) active within the OIZs in İzmir province are functioning in manufacturing industry.

There are a total of 735 manufacturing industry

and İzmir Menemen Leatherworks Free Zones), 7 zones within Marmara Region (İstanbul Atatürk Airport, İstanbul Leather and Industry, İstanbul Trakya, Avrupa, Kocaeli, Tübitak-MAM Technology and Bursa

Free Zones), 3 zones at Blacksea coast (Trabzon, Rize and Samsun Free Zones), 2 zones within Southeast Anatolia Region (Mardin and Gaziantep Free Zones), 1 zone within East Anatolia Region (Erzurum East Anatolia Free Zone), 1 zone within Central Anatolia Region (Kayseri Free Zone).

Regarding the two free zones, namely Aegean Free Zone (ESBAŞ) and İzmir Menemen Leather Free Zone

production, chemical substance and textile sectors (Figure 49). In Free Zones however, the enterprises are dominantly from leather, transportation vehicles, electricity and optical hardware, machinery and equipment, textiles and food production sectors (Figure 51).

In regard to employment creating ratios; manufacture of machinery and equipment, manufacture of leather and

Table 15: Some Data Given for İzmir Free Zones (ESBAŞ-İDESBAŞ)

Sectors	Number of Enterprises	Employment	Number of Enterprises with Sewerage System	Wastewater Treatment Plant (WWTP) Status		
				Existing	Pre-Treatment	Connected to Main WWTP
Mining and quarrying	0	0	0	0	0	0
Manufacturing	168	14.257	168	11	11	37
Electricity, Gas, Vapour and Hot Water Generation and Distribution	0	0	0	0	0	0
Construction	0	0	0	4	0	0
Wholesale and Retail Trade; Motor Vehicle, Motorcycle, Personal and Household Commodities Repair	136	1.502	136	0	0	0
Transportation, Storage and Communication	0	0	0	0	0	0
Other	0	0	0	0	0	0
TOTAL	304	15.759	304	11	11	37

Reference: February 2009 İZKA OIZ Survey results

(İDESBAŞ), within İzmir Territory, ESBAŞ is observed to be the most important free zone with 267 companies functioning within its body. When the enterprises within the free zones are analyzed in sectoral context, it is seen that a high percentage of these (55%) function in manufacturing sector. The remaining enterprises are found out to be comprised mostly of wholesale and retail trade companies. Regarding the sectoral distribution of employment within free zones on the other hand, manufacturing industry comes foremost with a value of 90%.

In the light of these data, the significance of manufacturing industry comes into view yet again. When the sector is analyzed deeper in this regard, it strikes attention that distribution differs in OIZs and Free Zones in tem of sub-sectors.

The enterprises in OIZs function mostly in machinery and equipment, metal products, plastic and rubber, food

leather products, manufacture of food products, beverages and tobacco, manufacture of wood pulp, paper and paper products, printing and publishing, manufacture of wood products, and manufacture of textiles and textile products sector come foremost in OIZs (Figure 48). In Free Zones on the other hand, manufacture of textiles and textile products, manufacture of transportation vehicle, manufacture of wood pulp, paper and paper products production, printing and publishing, manufacture of uncategorized products, manufacture of leather and leather products, and artificial fibre production come foremost in this regard (Figure 50).

Considering the results of the survey conducted by İZKA in February 2009 on OIZs and Free Zones, it has been observed that the main problems of these zones concentrate around infrastructure inadequacies and legislation arrangements. Especially at OIZs, serious inadequacies exist regarding waste management. It is

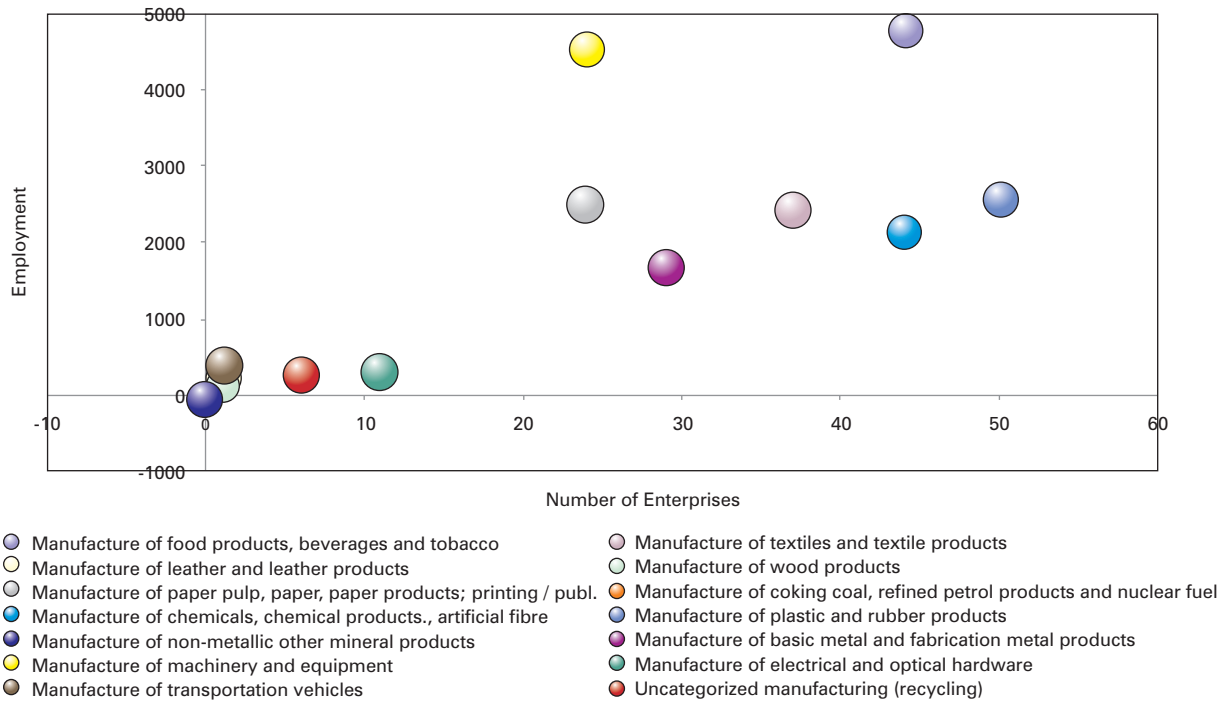


Figure 48: Sectoral Distribution of Manufacturing Industry within İzmir OIZs in terms of Employment and Number of Enterprises
Reference: February 2009 İZKA OIZ Survey Results³⁵

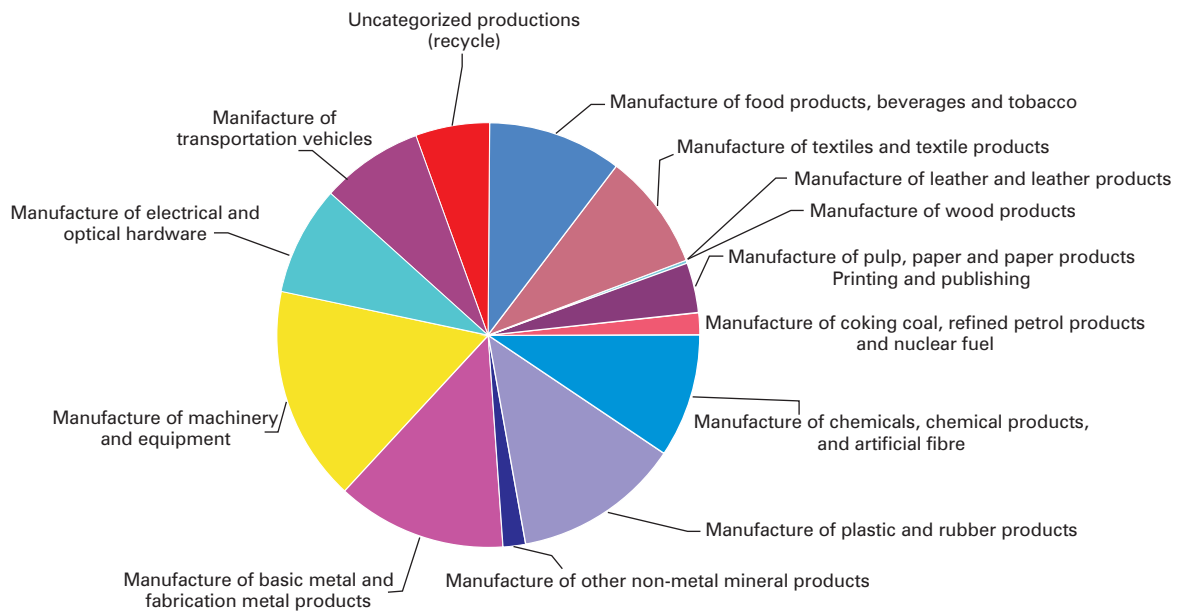


Figure 49: Sectoral Distribution of Manufacturing Industry within İzmir OIZs
Reference: February 2009 İZKA OIZ Survey Results, İAOSB, 2009

³⁵ The survey has been conducted in 1 completely functional OIZ (Atatürk OIZ), 5 partially functional OIZs (Aliğa, Buca-Ege Clothing, İzmir Trade, Kemalpaşa, Tire OIZs), and Aegean Free Zone and İzmir - Menemen Free Zones situated in İzmir. The survey has gotten responses from İTOB, ALOSBI, KOSBI, BEGOS and TOSBI. The graph has been prepared according to the data gotten from OIZs except İAOSB.

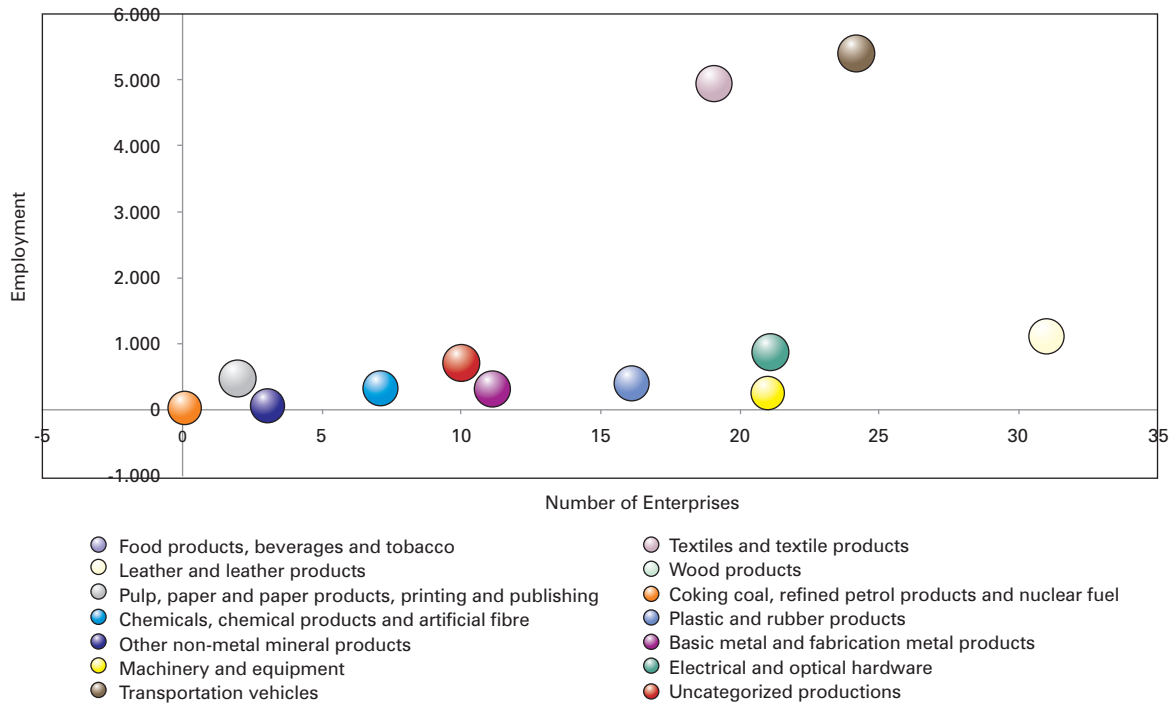


Figure 50: Sectoral Distribution of Manufacturing Industry within İzmir Free Zones in Terms of Employment and Number of Enterprises
Reference: February 2009 İZKA OIZ Survey Results

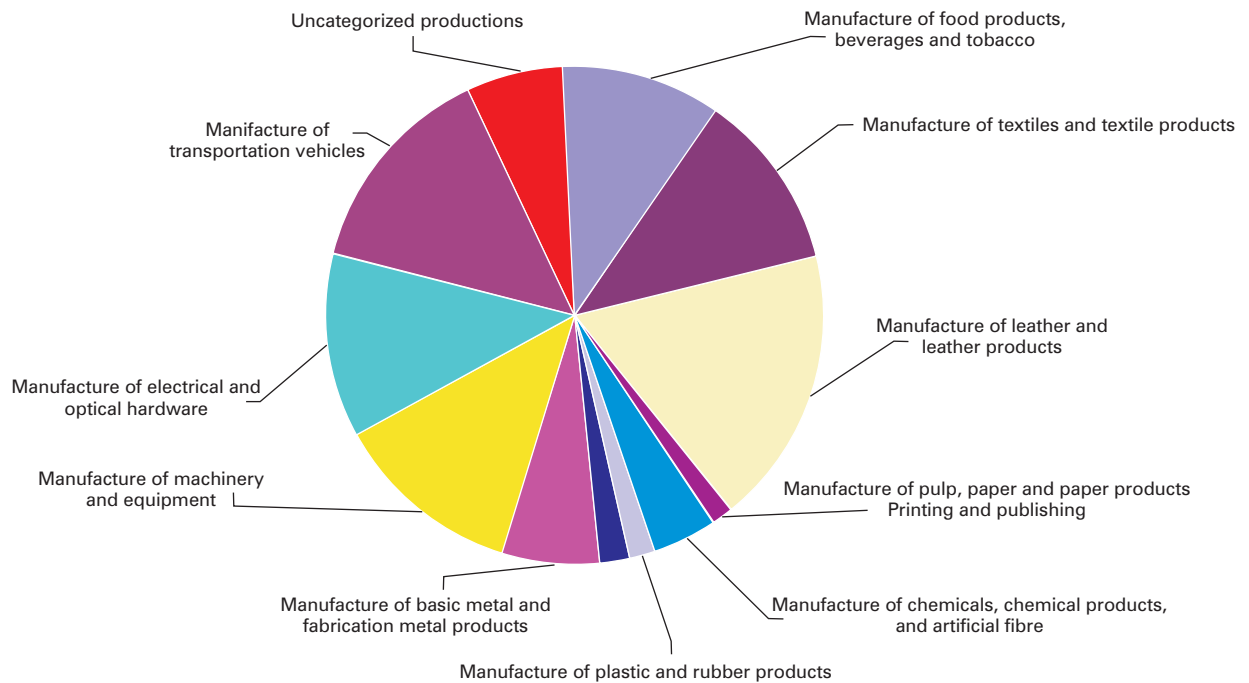


Figure 51: Sectoral Distribution of Manufacturing Industry in İzmir Free Zones
Reference: February 2009 İZKA OIZ Survey Results

seen that only 30% of the establishments have sewerage connection, 2% have pre-treatment facilities and 35% are connected to main WTP (Table 14). In Free Zones, although all establishments have sewerage connections, only 4% have pre-treatment facilities and 12% are connected to main WTP (Table 15). Furthermore, it has been indicated that the energy costs of treatment facilities create a high-cost input. It has been emphasized especially for Kemalpaşa OIZ that there is a crucial need for central wastewater treatment plant and immediate action should be taken towards addressing this issue. Aside from these, it has been indicated that there are infrastructural deficiencies regarding energy, transportation and communication issues at both OIZs and Free Zones. It is also emphasized regarding transportation that especially railway and land route connections should be strengthened. Moreover, with the industrialization permits being granted on fertile agricultural lands out of OIZs, drawing investments towards OIZs becomes more and more difficult; constituting yet another problem.

It has been indicated that another problem experienced results from the frequent legislation changes. These kinds of practices are reported to cause problems such as prolongation of certificate issuing periods, preventing integration between legislations, and protection of acquired rights. In general, it has been indicated at all OIZs and Free Zones that the incentives and tax discounts should be legally designed as per the constantly changing economic situation.

3.c.2. Energy Sector and Renewable Energy

Energy sector has become an important sector worldwide due to energy supply safety concerns. Along with energy supply safety, the titles of Kyoto Protocol and sustainability of development have also urged renewable and clean energy to outstand among all energy types. It is foreseen that the investments regarding renewable energy field to be made worldwide between 2007-2030 years shall reach 5.5 trillion \$. Furthermore, considering the situation again at international scale; the aims towards meeting 20% of the energy demand from renewable energy resources, increasing energy efficiency by 20% as of year 2020, and the aim towards utilizing renewable energy resources at all buildings as of year 2018 have been accepted by

European Union. With this change of direction in energy policies, the most significant change in our country between years 1990-2004 regarding end-use energy consumption structure has been in the consumption of electric energy and natural gas consumption. The ratio of natural gas has increased by 10.6% and the ratio of electricity has increased by 5.6% within the mentioned period. In this period, significant increases have been noted in the consumption of both geothermal heat energy and solar energy, while electricity generation from wind energy has also started since 1999. The highest share in end-use energy consumption within year 2004 has occurred in petrol by a ratio of 39.4%, while the use of renewable resources doubled to reach a ratio of 4.8% (DPT, 2006b). In Denmark, which is among countries that display a diverse range of resources similar to our region, the utilization contribution of use of renewable energy resources within overall energy consumption happened to be approximately 17% as of year 2005, while the value aimed to be reached as of 2020 is 30%. In 2005, the utilization ratio of renewable energy resources has been 9%, while in Italy this has been 6%. 2020 aim of these countries are 20% and 17% respectively. In developed countries this value goes up to around 50%, and in Sweden, which is an example to this state, the value has happened to 40% as of year 2005, with the aim to be reached in 2020 has been defined as 49% (IEA, 2006).

It is observed that the energy consumption of İzmir is approximately 54% higher than Turkey average and the consumption has increased by 15% within two years. Renewable energy sector is crucial for the region regarding contributing to the increase in the energy supply safety of the country, utilizing the local renewable energy resource potentials, realizing the development of İzmir in terms of sustainable development principles. Moreover, considering its position throughout the country and among neighbouring provinces, the potential of the province towards becoming the renewable energies centre should be utilized. Considering especially the wind and geothermal resources of İzmir, the significance of its potential in renewable energy sector becomes even more considerable. Furthermore, in this Region which has advantages also regarding biomass energy, solar energy appears as yet another important energy resource that

needs to be utilized. When the public investments of the 2005-2008 period are analyzed at a sectoral basis, it is seen that no investment has been made to the energy sector of İzmir.

According to the report of European Wind Energy Association (EWEA), the installed wind electricity plant power within EU states has increased by 18% as of year 2007 to reach 57,136 MW, while the same value has increased by 27% to reach 94,112 MW throughout the world. In Turkey, this value has increased by 94% and reached 146 MW. Along with those activated as of year 2008, a total installed power of 249,15 is in service and 90,4 MW (36%) of this power is generated within İzmir territory (17% in Aliğa, 19% in Çeşme). This power has been obtained by utilizing just 1% of the theoretical potential. The province of İzmir is considerably rich in wind energy with its theoretical potential of 11,815 MW, and the total energy amount to be generated from this potential would be approximately 31 billion kWh/year. This value is higher than the overall electricity consumption of Aegean

Region (21 billion kWh/year as of 2005). In terms of wind energy potential, İzmir comes at third place throughout the country (Boztepe, 2008). In the map given below, the regions suitable for wind energy investments within İzmir are shown.

In the event the geothermal heat potential that is 31,500 MW throughout Turkey is used in fields such as electricity generation, urban heating, cooling, greenhouse heating, thermal facility heating, thermal tourism utilization, chemical substance production and industry, the annual net domestic added value would be around 25 billion US dollars (DPT, 2006c). The contribution of geothermal energy to Turkey national economy has been calculated as 1.4 billion US dollars as of year 2005. This value is only 5.6% of the amount that can be obtained in case the entire potential is utilized. From all this data it is apparent that utilization of geothermal resources is crucial for Turkey.

The geothermal resources in İzmir vary regarding their temperatures. This diversity enables a wide range of

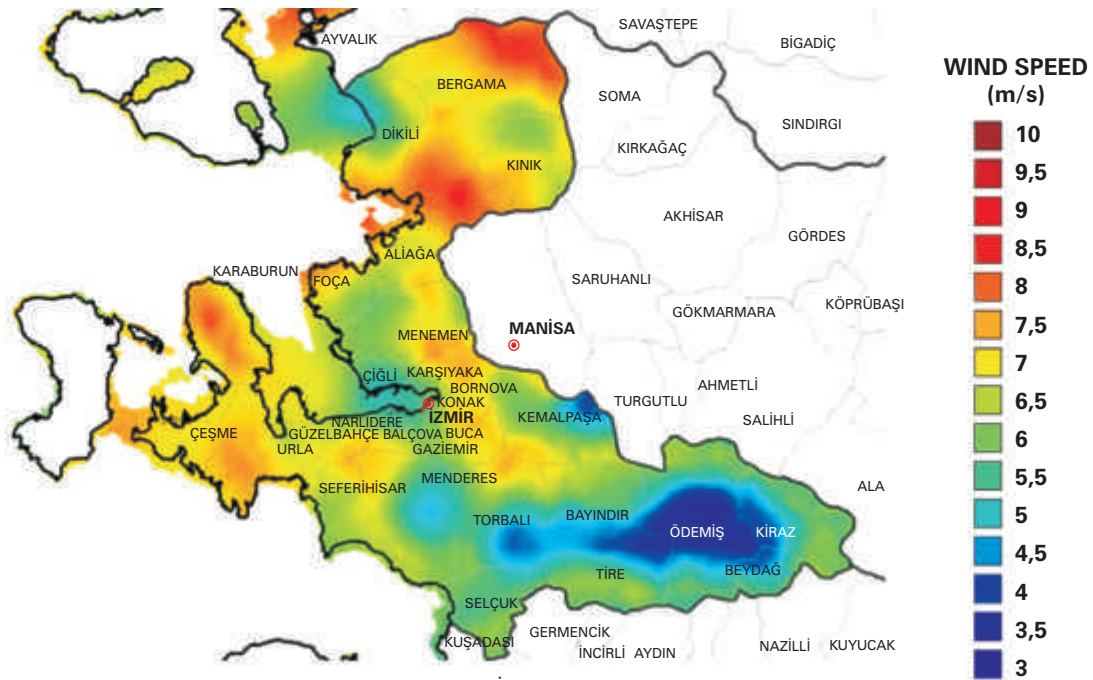


Figure 52: İzmir Province Wind Map
Reference: EİEİGM, Turkey Wind Energy Potential Atlas,
<http://repa.eie.gov.tr>; access: 9th February 2009

utilization areas. In Figure 40, data regarding the geothermal resources and their utilization potentials in İzmir are given. The potentials in Seferihisar (35 MWe), Dikili (30MWe), and Balçova (5MWe), has such temperatures that enable electricity generation. Also, while regarding domestic heating there is a potential residence equivalent of 212.000, only 11% of this potential is being utilized. On the other hand, only 3% of the 19.000 decare greenhouse heating potential is used. Furthermore, although the potential for health tourism exists in 8 districts that are geothermal fields, current utilization is mostly limited to Balçova, Çeşme and Dikili districts.

Foreign technology develops very fast regarding renewable energy technologies and the technology production and R&D studies conducted both at regional and at national scale cannot meet the technology demanded in time. Especially regarding solar energy sector, İzmir has investment potential towards technology generation. On the other hand the

present situation of the workforce and human resources in sector also bear importance. In 4 out of 7 universities within the province, electrical and electronic engineering and mechanical engineering departments exist. Regarding research centres and institutes; there are units within Dokuz Eylül University, Ege University and İzmir Institute of Technology relevant to renewable energies. However, creating the workforce qualified for meeting the sector's demand in the departments and units in question, and reshaping of the education programs in this subject actively according to the region demand are important tasks. Regarding renewable energy infrastructure; it is important to develop the infrastructures such as transmission lines, electricity grid connection towards meeting the demands of renewable energy investments rapidly increasing at the region, and to provide the infrastructure towards realizing efficiency in renewable energy utilizations of central institutions and organizations along with actors conducting infrastructure works within the region.

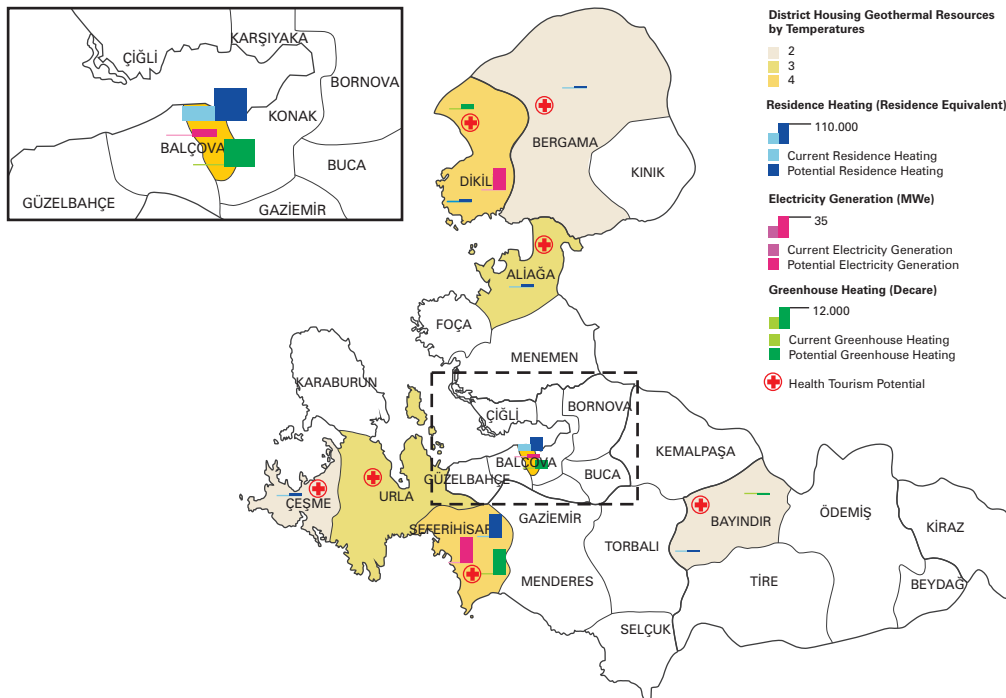


Figure 53: Geothermal Resources, Existing Utilization States and Potentials in İzmir³⁶

³⁶ Formed by compiling the information and data from the resources: "Geothermal Resources, Current States and Potentials" map; Türksih Geothermal Association, 2007; DPT, 2006c; Aksoy, 2009: p.143.

3.c.3. Mining Sector

According to year 2002 data, the only district of İzmir that is concentrated in mining and quarrying sectors is Bergama (Figure 54). The reasons of the otherwise agriculture-based district's concentration in this sector are the rich perlite reserves, lignite, granite and stone quarries, gold mines, natural hot spring waters and water resources.

Considering the district-based sectoral distribution of foreign capital companies as of 2001, it is observed that the lowest investment is in this sector with a value of 2.4% within overall investment (Efe, 2004). And when the incentive certificates and constant investment rates of foreign capital companies making investments in İzmir between years 1980-2006 in context of investment incentive certificate are analyzed, the lowest values within the three sectors we studied under industry title is yet again within mining sector (İZKA, 2007).

3.d. Services Sector

İzmir is a province of highest services sector concentration along with İstanbul and Ankara (TÜSİAD, 2005). The highest contribution to İzmir GDP is provided by services sector with a ratio of 54.4%. Regarding the distribution of GDP within services sub-sectors, it is seen that the highest shares belong to wholesale and retail trade sector, and transportation and communication sector. At the third place, public services reside. On the other hand, the shares of residence ownership, hotel and restaurant services, financial establishments and self-employment services sectors within GDP are generally below 5%. After 1999, the share of residence ownership went above 5%.

It is striking that the GDP contribution of hotel and restaurant services is low in İzmir that is an important province regarding tourism potential.



Figure 54: Concentration Levels of Districts in Mining and quarrying Sectors, 2002

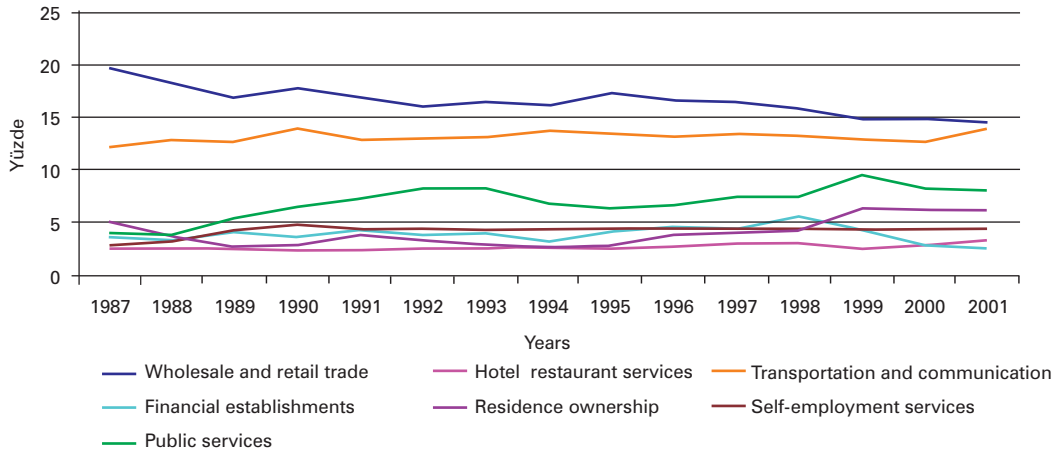


Figure 55: GDP Distribution within Services Sub-Sectors in İzmir³⁷

However, the sector's 2001 İzmir development rate of over 70% that is above that of Ankara and İstanbul provinces points out that the sector has development potential. Furthermore, the GDP contributions of financial establishments and self-employment services are expected to have been higher in İzmir, a

metropolitan city that is Turkey's 3rd biggest province. While the 2001 development rate of self-employment services is around 50% that is a similar level to that of Ankara and İstanbul provinces, the development rate of financial establishments is around 30%, that is below Ankara and İstanbul provinces.

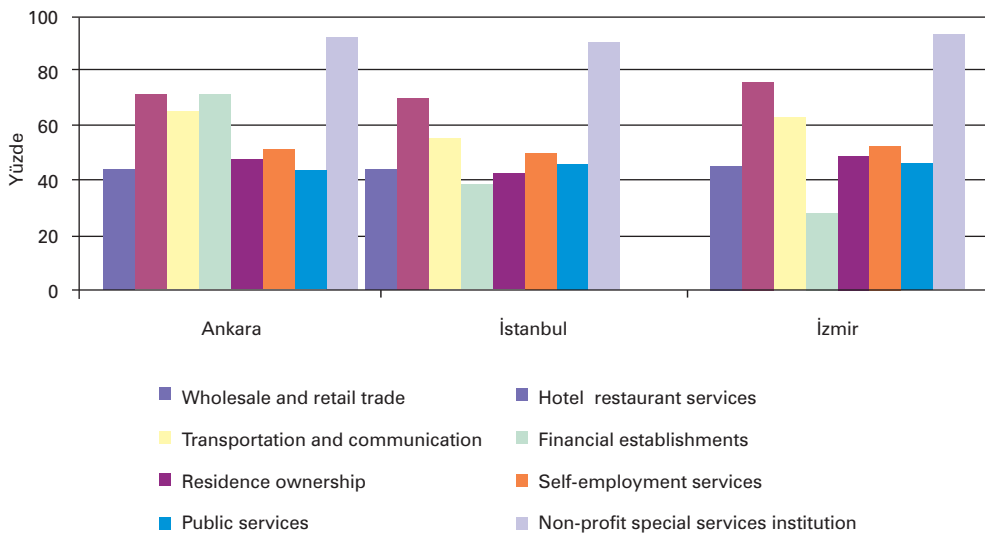


Figure 56: Development Rates of Services Sub-Sectors, 2001³⁸

³⁷ TÜİK Data Utilized

³⁸ TÜİK Data Utilized

47.3% of all people working in services sector within Aegean Region are employed in İzmir. Regarding the distribution of this employment within services sub-sectors, it is seen that the highest share belongs to wholesale and retail trade sector. Following this, the transportation, storage, communication sector and hotel, restaurant and coffee house sector are the sectors with highest employment share. While the GDP contribution of hotel and restaurant services is around 2.5%, the employment ratio of the sector is 7.9%. Therefore, it is found out that in hotel and restaurant

services, which constitutes an important portion of tourism sector, workforce efficiency is not high enough.

The number of international capital companies functioning in İzmir services sector is 720. 384 of these function in wholesale and retail trade sector, 121 in real estate rental and business activities, 80 in transportation, storage and communication services, 71 in hotels and restaurants sector, 55 in other social and personal services and 9 in financial intermediate organization activities.

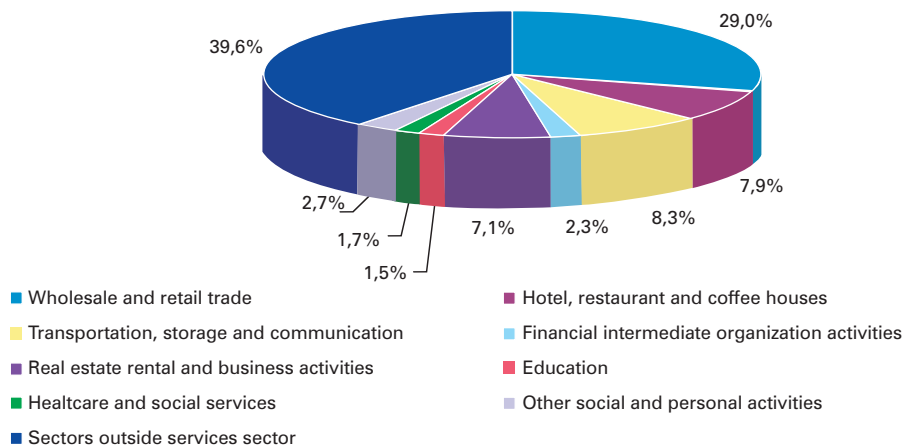


Figure 57: Employment Distribution in İzmir Services Sub-Sectors, 2002³⁹

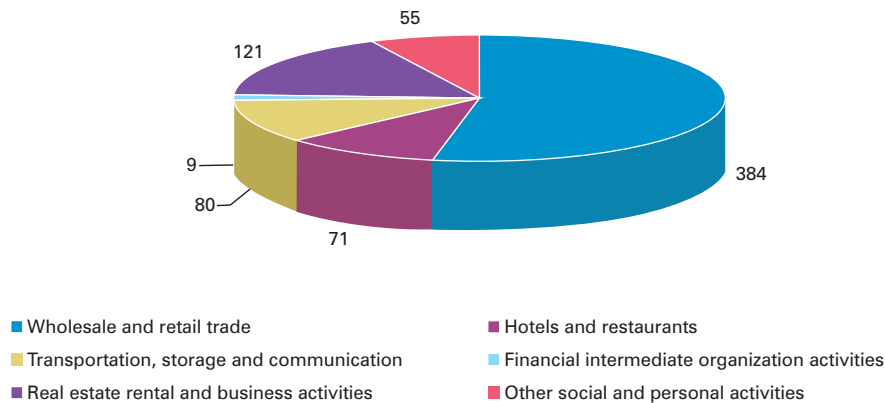


Figure 58: Distribution of International Capital Companies in İzmir Services Sub-Sectors, 2008⁴⁰

³⁹ TÜİK Data Utilized

⁴⁰ Undersecretariat of Treasury data utilized

Sectors that outstand within services sector regarding GDP contribution, employment share and the number of international capital companies housed are the wholesale and retail trade sector, and the transportation and communication sector. Tourism sector on the other hand is not a prominent sector despite the region's natural, historical and cultural assets. In the later sections, present situation of the logistics, trade and tourism sectors shall be reviewed.

3.d.1. Logistics

Although the concept of logistics have many alternative definitions within a range extending from “carriage” approach to “supply chain” context, it may be briefly defined as “the two way flow of goods, services and information between production and consumption points for meeting customer needs”. In this scope, the sector of logistics covers a wide field ranging from transportation types to port management, and from storehouse-warehouses to insurance and customs services.

The worldwide potential of logistics sector is estimated to be around 6 trillion dollars. Sector share in GNP is around 8-10% in developed countries. Growing approximately by an average rate of 10%, the sector displays a performance considerably above the level of worldwide economy that grows at a level around 3-4%. Regarding the data in our country, the sector's size has reached to 60 billion dollars and its share within GNP to around 12% - 13%. All these indicators underline the increasing importance of the logistics sector throughout the world and our country (İEÜ, 2009).

In İzmir, there are 294 international transportation companies, 44 international warehouses and agencies, 869 cargo transportation companies, 549 passenger transportation companies, 218 mail and courier companies and 281 transportation-support companies functioning within the logistics sector registered under the İzmir Chamber of Commerce. The activities realized in İzmir within the field of logistics are observed to be dominantly; transportation, storeroom activities and warehouse keeping activities. The logistics capacity of the region cannot be utilized to its full extent and the investments made do not meet the expectations sufficiently. However, storing, handling and distribution

activities that are effective factors in logistics sector are increasingly becoming widespread. (İZKA, 2007a).

Approximately 80% of the world trade and a portion close to 90% of our country's export and import are being carried out by the sea. The feature of transporting the loads constituting raw material for industry at one time and in higher amounts, and the cost of transportation being 3.5 times cheaper than railways, 7 times cheaper than highways, and 22 times cheaper than airways are among the significant advantages of maritime transportation (DPT, 2007b).

In our country, policies concentrating on railways and maritime transportation had been embraced until year 1950. As of 1950, the share of railways was 55.1% and maritime transportation 27.8%, while highways had a share around 17.1% regarding freight transports. Yet again in the same period, the distribution of passenger transport within transportation types was like; 49.9% highways, 42.2% railways, 7.5% maritime and 0.6% airways. After 1950, policies supporting highways transportation made the transportation in Turkey dependent upon highways. Due to this, domestic transportation in our country is made today via highways (land routes) by 92% regarding freight transport and 95% regarding passenger transport (DPT, 2007b).

In order to indicate the present situation of logistics sector in İzmir, it is necessary to first examine the ports that constitute the city's infrastructure and then to compare İzmir with other cities similar in terms of geography.

3.d.1.a. Ports

3.d.1.a.1 İzmir Port

İzmir Port is the largest port of Aegean Region with its annual ship acceptance capacity of 2,757. With its central position between West Europe and North Africa, and its strong hinterland, İzmir is not only the agricultural and commercial centre of Aegean Region but also a crucial actor in regards to exporting Turkish export products.

İzmir Port, which is the most prominent export

port of Turkey regarding container handling, has significant potential in becoming an important trade port between European, Middle East and Asian countries with the railways and highways connections it has, besides already being the portal to import goods for Central Anatolia and Aegean Regions. According to the ULIMAP National Port Development Master Plan prepared by JICA Japan International Cooperation Agency it has been indicated that İzmir Port can be made a major container port (DPT, 2007b).

Also considering the convenient position for reaching the touristic assets of Aegean Region and the close proximity to Adnan Menderes Airport (25 km), the port may also be mentioned as important regarding passenger services.

In İzmir Port, being the prominent export port of Turkey regarding container handling, an increase of 83% has been observed in container loading/unloading activities between 2001-2007 years. Container loading/unloading amount that was 491,377 TEU as of 2001 has increased to 898,217 TEU in 2007.

In result of Turkey's import and export loads increasing every year and the intense demand occurring especially in container transportation, the problems of İzmir Port towards meeting the demand began to constantly increase. Due to the density in İzmir Port, increases are experienced in the anchored waiting times of ships during heavy traffic periods. For that reason, maritime companies has begun implementing congestion surcharges in container transportation fees for shipping done between European ports and İzmir that go up to 25% since September 2004. This situation has caused significant problems especially for the export traders.

For İzmir Port to be able to compete with Piraeus Port in container transportation, the infrastructure should be improved and new projects should be realized. Due to the approach channel connecting the port to the gulf being not suitable for larger ships' passage, this channel should be deepened. In this context, it is aimed to comb the gulf approach channel for providing a minimum depth of 14 metres, thus making it suitable for the entry of larger sized (Panamax and Postpanamax type) container ships and create an additional capacity of 500,000 TEU within medium term in İzmir Port.

Table 16: Port and Container Traffic Data in TCDD-Administrated Ports (2007)

Ports	Port Traffic (1.000 Ton)		Container Traffic (TEU)
	Loading	Unloading	
İzmir	7.740	4.328	898.217
Haydarpaşa	1.376	2.552	396.637
Mersin	2.276	3.329	232.181
İskenderun	367	1.480	603
Derince	845	2.186	488
Bandırma	3.799	4.666	9
Samsun	538	1.078	0
TOTAL	16.941	19.619	1.528.135

Reference: TCDD, 2007; TCDD, 2009

As may be seen from Table 16, approximately 50% of the loadings conducted at TCDD-administered ports and 60% of the container traffic occurred in İzmir Port as of 2007. Another striking point is that no port other than İzmir Port had loading values higher than unloading values. This situation emphasizes the importance of İzmir Port in exports.

Privatization tender of the İzmir Port has been made at 3rd of May 2007, and the operations rights of the port have been acquired by the highest bidder, Joint Enterprise Group of Global-Hutchinson-EİB (Aegean Importing Associations Harbour Services and Transportation Inc.) with a fee of 1 billion 275 million

⁴¹ TEU=Twenty Feet Equivalent Unit (container unit used in international maritime transportation)

US dollars. However, the tender result has gone to court and abolishment has been decreed in the suspension and abolishment of execution lawsuit seen in the 13th Chamber of the Council of State aimed against the tender and the decision of High Board of Privatization. Due to the objection presented to the Council of State Plenary Session of Chambers for Administrative Cases, the suspension decree have been abolished. Assent from the Council of State is awaited (İzmir Governorship, 2009).

3.d.1.a.2 Aliğa-Nemrut Docks

At the Nemrut docks in Aliğa district, docks and wharfs exist belonging to private sector enterprises. These docks and wharfs, besides from loads belonging to their own organizations, serve also to third parties.

At Nemrut docks, a total of 37,401,000 tonnes of loading/unloading has been done via 4,286 ships, while in 2008 this value has increased to 40,537,225 tonnes via 4,471 ships. Nemrut Bay Additional Docks and Land Reclaim Purpose 1/1000 Scale Zoning Plan has been approved by the Ministry of Public Works and Settlement in 19th of April 2006, however the 6th Chamber of the Council of State has decreed suspension of execution. Within the region, infrastructure facilities, especially the ring line project as an extension of the Menemen-Aliğa railway, should be completed and the region should be brought to port status (İzmir Governorship, 2009).

3.d.1.a.3 Çeşme Port

Çeşme Port that is yet another port of İzmir is used for passenger ships and Ro-Ro cruises. With the Ro-Ro cruises done from the port to Trieste city in Italy, the trucks are provided with faster travel to Europe. It is possible to reach the port that is at a distance of 70-80 km from İzmir Centrum via highway. The port has an annual ship acceptance capacity of the 1,060 ships and a wharf length of 300 metres.

3.d.1.a.4 Dikili Port

The existing dock at Dikili Port that is situated at the north of İzmir is capable of serving both bulk freighters and passenger ships. The port is at an approximate

distance of 100 km from İzmir. With its wharf length of 271 metres, Dikili Port functions with a capacity suitable for 3 passenger ships to dock at the same time.

3.d.1.a.5 North Aegean (Çandarlı) Port

Due to the necessity towards a large scale port, which can introduce the region that employs high development potential with cheap raw materials and can convey its manufactured goods to new markets, construction of a new port is planned at Bergama district Çandarlı Gulf. Project tender of Çandarlı Port that is to be realized via Build-Operate-Transfer model has been done, and the relevant process is in progress. With a capacity of 20 million tonnes/year and 2,500 hectares of storage area, it is projected that the port shall rank among the top 10 ports worldwide, become the largest port throughout Mediterranean Sea by being capable of accepting large transit ships for loading-unloading actions (İzmir Governorship, 2009). Planned capacity of Çandarlı Port with the completion of 2nd stage is 2,000,000 TEU, and it has the potential of competing against Haifa, Damietta and Piraeus Ports and becoming one of the significant major transshipment ports of East Mediterranean thanks to its strategic position between Mediterranean Sea and Black Sea and its expansion area (İEÜ, 2009).

3.d.1.a.6 Comparison with Worldwide Similar Port Cities

There are many ports with different functions such as trade centre and transshipment port in Mediterranean Sea. Some ports are trade exit portals regarding export and import actions, or in other words a high capacity main port for the country or region geography they belong to. This kind of ports that have considerably large scale hinterlands are integrated with land routes, airways, maritime lines, railways, river lines and pipe line transportation. Marseilles in France, Barcelona in Spain, Genoa in Italy, Haifa in Israel and İzmir in Turkey are among such ports within Mediterranean Sea. On the other hand, Algeciras in Spain, Gioia Tauro in Italy, Marsaxlokk in Malta, Piraeus in Greece and Alexandria, Said and Damietta Ports can be given as examples in Mediterranean Sea to transshipment ports that are dominantly utilized for freight distribution functions where especially container transportation is

actively used (Erdal, 2005).

İzmir has an important potential among worldwide port cities. However, considering the level of development and infrastructure works, it can be seen that this potential of İzmir is not utilized sufficiently.

Among Mediterranean ports, Marseilles Port ranks at the first place with its load capacity of 94.1 million metric tonnes. However, Marseilles faces some serious competition within Mediterranean territory regarding

possible to reach the entire Europe within 24 hours.

Piraeus Port on the other hand, is among the top 10 ports within Europe and the foremost port within East Mediterranean with its container traffic of annual 1.6-1.8 million TEU. Approximately 50% of the port's yearly traffic is transit. Total area of the container terminal is 900,000 m² and storage area is 626,000 m². Wharfs' length is 2,774 metres with varying depths from 11.5 to 1.8 metres. With its wind-shielded location, sufficient depth and area, the port is capable of fast



Figure 59: Major Transshipment Ports Situated at Mediterranean Sea and Europe Continent
Reference: İEÜ, 2009

container trafficking. The reason to that is the existence of more convenient transshipment ports along the international maritime trade transit lines in terms of geography. Marseilles is in a challenging position at almost all fields of transportation (land routes, airways, maritime lines, railways, river lines and pipe line transportation). With the highways and railways developed in international goods transportation, it is

service to main and support ships of up to 6.000 TEU (PLİ, 2009). Especially large TEU capacity ships cruising between Europe and Far-East prefer Piraeus Port in their transshipments.

From Mersin Port, which is among the biggest ports in Turkey and Mediterranean Sea, freight and passenger transportation is done to all important ports throughout

the world. Although the highway and railway connections of Mersin are strong, Adana Şakirpaşa Airport has to be utilized for airway transportation. There are several companies within the region conducting domestic and abroad freight transportation works. Compared to İzmir Port, the transported load amounts and container traffic has rapidly increased since year 2003. The significance of Mediterranean Region and Mersin Port as a transit port is constantly on the rise. It is observed on the other hand that Aegean Region and İzmir Port is utilized rather for loading/unloading (import/export) purposes (İEÜ, 2009).

3.d.1.b. Warehousing Activities

3.d.1.b.1 Warehouses

Warehouse activities are the third activity type in terms of highest share among all logistics activities, following transportation and distribution. There are a total of 116 warehouses functioning in İzmir under the supervision of Prime Ministry Undersecretariat of Customs İzmir Chief Directorate of Customs and Enforcement, of which 72% are concentrated within Aliğa (37 warehouses), Kemalpaşa (33 warehouses) and Torbalı (13 warehouses) districts. The conclusion to be reached regarding the types and numbers of the warehouses situated within İzmir is that the major part of overall warehouse demand in İzmir and its surrounding region is met by the companies themselves and the service providing known as third party logistics (3PL) is not yet common in the area. This lack of service may be

considered as an opportunity for companies or investors capable of providing warehousing services (İEÜ, 2009).

3.d.1.b.2 General Purpose Depots and Cold Storage Depots

Regarding warehousing activities, an aspect more commonly observed are the numerous general purpose depots. Although there are many general purpose depots in İzmir, most of the existing depots are not registered. Similar to the situation with warehouses, depots of the major logistics companies are also situated generally at Kemalpaşa and Torbalı districts. The depots in İzmir generally being of less capacity and the utilized systems and automation levels being less developed compared to İstanbul are limiting factors regarding the development of logistics sector in İzmir at middle term.

Cold storage depots in İzmir are generally of the type that provides service to fresh fruits and vegetables sector. The fact that the cold storage depots are not bound under any institution prevented reaching sufficient knowledge in this regard. In a study of İEÜ however, 7 cold storage depots with a total capacity of 27,000 tonnes that belong to major companies are discovered. The insufficiency of such depots in terms of both number and capacity adversely affects the development of some business branches with organic agriculture of İzmir coming foremost among them (İEÜ, 2009).

3.d.2. Commerce

Being an important foreign trade (commerce) centre of

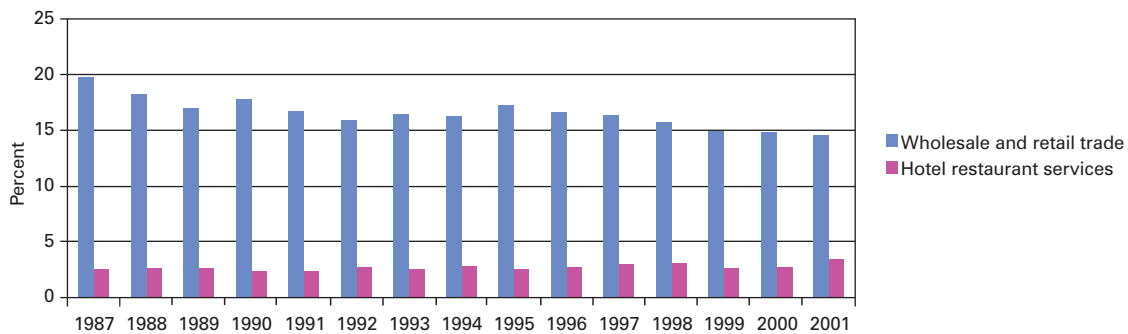


Figure 60: The ratio of Commerce Sub-Sectors within GDP in İzmir, 2001⁴²

⁴² TÜİK (2008a) data utilized

the country since very old times, İzmir still maintains its characteristic of being the second most important foreign trade centre of the country for the surrounding provinces and regions (DPT, 2003). Commerce sector's contribution to GDP has been examined under wholesale and retail trade, and hotel and restaurant services sub-sectors (Figure 60). Wholesale and retail trade sector has a high share within GDP. However, the GDP contribution of this sector, which has been almost 20% as of 1987, declined down to below 15% as of year 2001. GDP contribution of hotel and restaurant services on the other hand, cruises between 2% - 3%.

3.d.2.a. Foreign Trade

While maintaining the feature of being an important

foreign trade centre of Turkey, the export share of İzmir is on a trend towards declining during the last years. The share ratio of İzmir was 7.70% as of year 2002, whereas in 2008 this value has declined down to 5.96% (Figure 61).

Considering the ratio of provincial export within overall Turkey export, it is observed that the ratio of İzmir is below that of İstanbul and Bursa provinces but slightly above Ankara and Kocaeli provinces. The fact that İstanbul and Bursa provinces are specialized on technology-intensive sectors which have higher added value is a factor in their export shares being higher than İzmir.

Considering the ratio of provincial import within

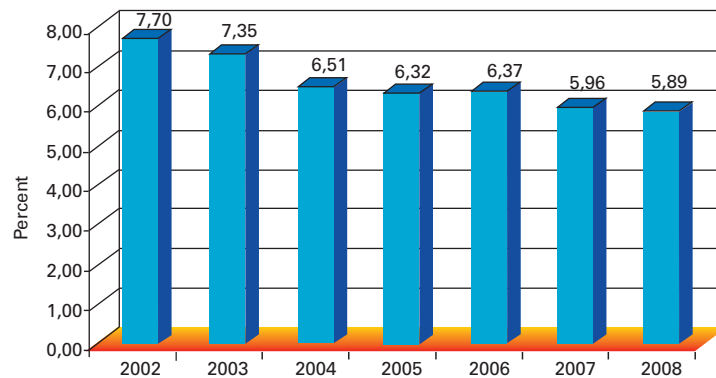


Figure 61: The Ratio of İzmir Export within Turkey Overall Export

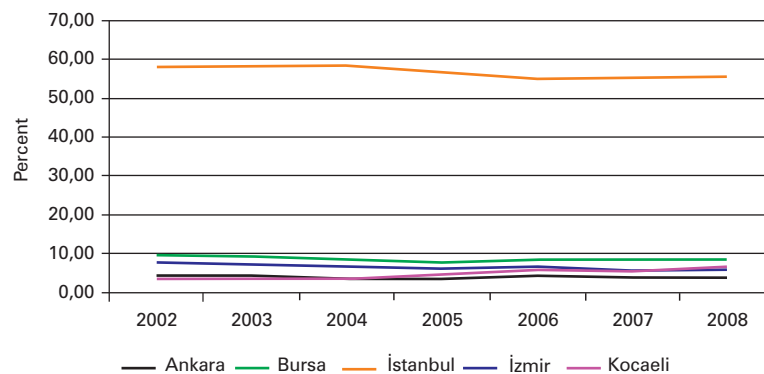


Figure 62: Various Provinces' Export Ratios within Turkey Overall Export⁴³

⁴³ TÜİK (2008a) data utilized in terms of US dollars. Data belonging to year 2008 are for the first 11 months.

overall Turkey import, it is observed that the ratio of İzmir is below that of İstanbul, Ankara and Kocaeli provinces but similar to Bursa province (Figure 62).

The export/import ratio of İzmir province was 121.39% as of year 2002 while this value has declined down to 93.64% in 2008. İzmir province was having foreign trade surplus until year 2003, while after this year it began having foreign trade deficit for the last 5 years (Figure 64).

According to customs data, total export value of İzmir has been 21.6 billion dollars as of 2008. Within this amount, the highest share belonged to iron-steel industry with a value of 18.8%. Following that, refined petrol products, motor land vehicles, television-radio

receivers and audio-video recording or producing equipment etc. devices, clothing, processed vegetables and fruits are the most exported products.

As of year 2008, total import value of İzmir province is 26.1 billion dollars. Within this amount, the highest share belongs to raw petrol and natural gas products with a ratio of 27.7%. Import share of waste and scraps have an import ratio of 13.5%, refined petrol products 10.7%, metal industry outside of iron-steel 5.1%, cereals and uncategorized plant-based products 3.4%, and iron-steel 3.3%. Regarding the sum of the import shares of first and third place products, an energy import ratio of 40% points out that İzmir is a foreign dependent province.

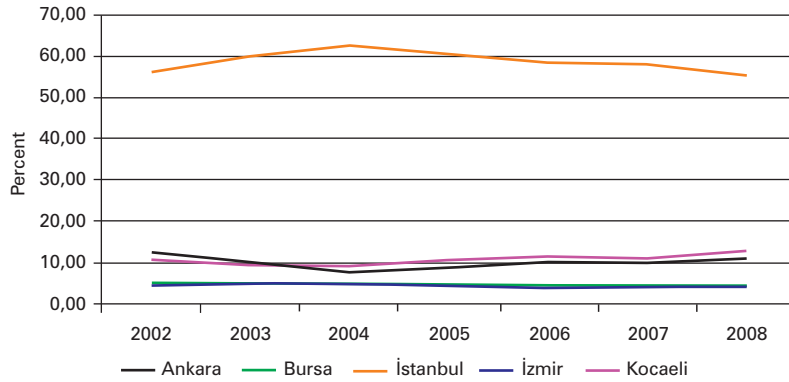


Figure 63: Various Provinces' Import Ratios within Turkey Overall Import⁴⁴

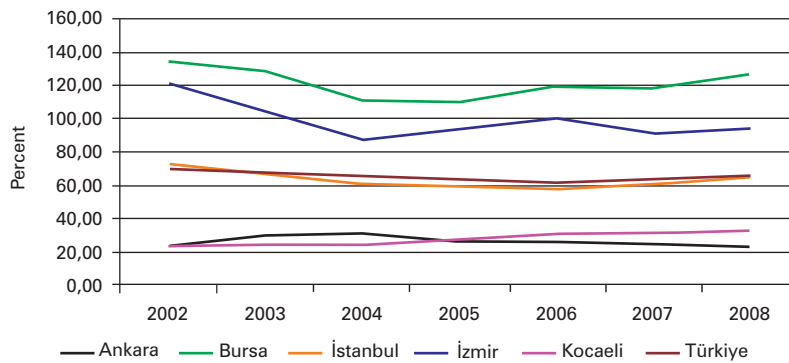


Figure 64: Export/Import Ratios in Various Provinces⁴⁵

⁴⁴ TÜİK (2008a) data utilized in terms of US dollars. Data belonging to year 2008 are for the first 11 months.

⁴⁵ TÜİK (2008a) data utilized in terms of US dollars. Data belonging to year 2008 are for the first 11 months.

Considering that energy shortages have begun occurring at global scale and energy prices are inclined towards increasing, the aim for both Turkey general and İzmir should be prioritising energy investments and thus become a country self-sufficient in terms of energy. İzmir province possesses an important potential regarding wind and geothermal energy resources. Prioritising investments towards renewable energy resources in İzmir shall reduce import amounts, creating a positive effect on the foreign trade balance, along with reducing the hazards to the environment. Furthermore, the R&D works in this regard should be increased also for providing development at local scale in terms of technology related to energy.

3.d.3. Tourism Sector

The main goal of Turkey's long-term tourism strategy is being one of the five top countries worldwide that attract the most tourists and acquire the highest tourism income in the year 2023. As of 2007, Turkey is at 10th place throughout the world regarding tourism income, and 9th place regarding number of attracted foreign tourists (Ministry of Culture and Tourism, 2009).

From 1960s to 1980s, İzmir and its surrounding have maintained the feature of being one of the most important destinations for almost half of the foreign tourists visiting Turkey. However, although the

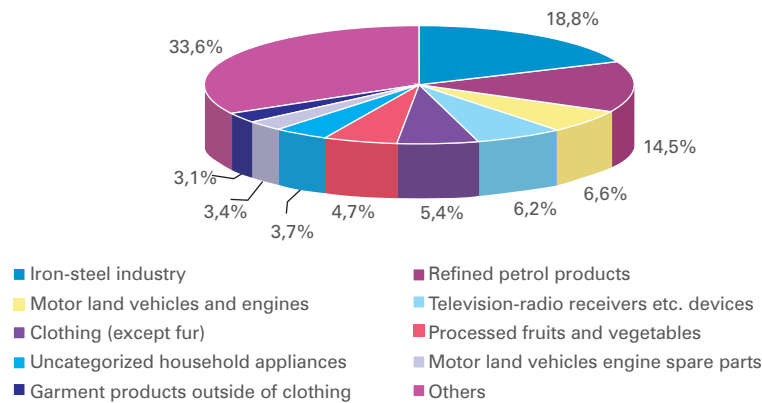


Figure 65: Products of High Export Ratios in İzmir as of Year 2008 (\$) ⁴⁶

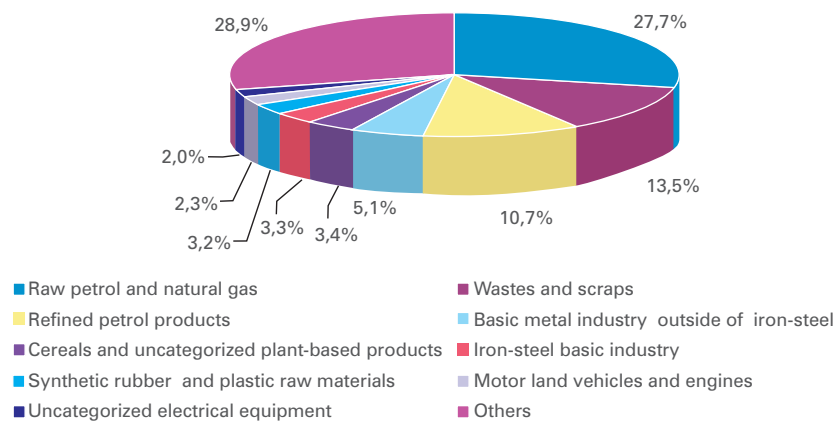


Figure 66: Products of High Import Ratios in İzmir as of Year 2008 (\$) ⁴⁷

46 TÜİK data, ISIC Rev 3 classification, 4 Code detail

47 TÜİK data, ISIC Rev 3 classification, 4 Code detail

number of tourists visiting İzmir has been inclining towards an increase for the last 3 years, İzmir province has undoubtedly fallen back in tourism during the last 20 years (BASİFED, 2005; İzmir Provincial Directorate of Culture and Tourism, 2009).

slightly more than its population, Muğla attracts approximately three and a half times its own population, while Antalya and Barcelona attract more than four times their own populations. To İzmir, a foreign tourist population approximately one fourth of its own population can be attracted.

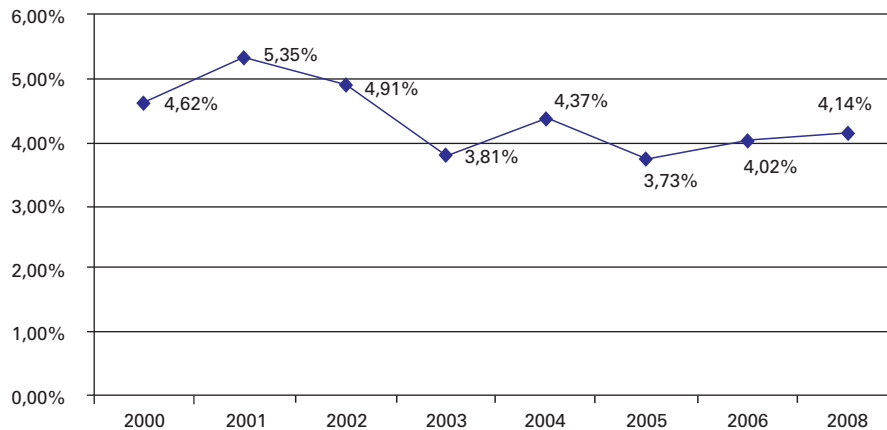


Figure 67: The Ratio of the Number of Foreign Tourists Visiting İzmir to Overall Turkey Amount, 2000-2007
Reference: TÜİK, 2008

Comparing İzmir with some other cities within its near geography, it is observed that Antalya, Athens and Muğla cities, which are similar to İzmir regarding their features related to tourism, are able to attract more tourists than İzmir despite their populations being lower than İzmir. Athens attracts a foreign tourist number

It is a known fact that extensive efforts are made towards the tourism publicity (advertisement) of Barcelona, while Greece gives priority to the promotion of the islands and Athens also attracts many tourists that use Athens as a passage point towards the islands. Antalya and İstanbul are among the 4 main destinations promoted

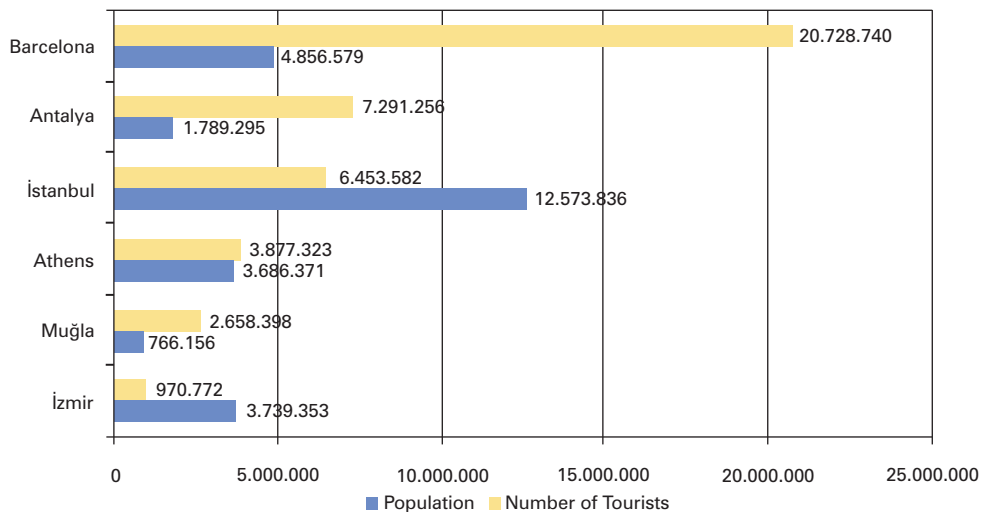


Figure 68: Population and Attracted Tourists for İzmir and Some Other Cities within Its Near Geography, 2007
(Athens population is based on 2001 data and Barcelona population is based on 30.06.2007 data.)

by the Ministry of Culture and Tourism. Therefore, it may be mentioned that advertisement and publicity play important roles towards attracting tourists.

Transportation networks have a considerable supportive effect on the competitiveness of certain tourism centres. For instance, regular charter flights from England and Germany within tourism season have been effective in favour of Muğla and Antalya to be capable of competing against the tourism centres throughout Europe (Aykaç Yanardağ; Yanardağ, 2009).

It can also be mentioned that İzmir is not involved sufficiently with tourism in terms of investment and planning (Aykaç Yanardağ; Yanardağ, 2009). The tourism related public investments granted upon Antalya in 2008 are approximately 25 times the investments made for İzmir (DPT, 2009). The state (public), private sector and local actors should have an integral tourism approach and support the infrastructure, publicity, investment stages with qualified staff, transportation network and technological development by working in cooperation (Aykaç Yanardağ; Yanardağ, 2009).

The competitive power and market share of İzmir is significantly low compared to other prominent tourism destinations throughout Turkey and the world. Compared to foremost tourism centres in Turkey, it remains in the background in terms of both supply and demand. In general, the share İzmir receives from Turkey tourism market is around 4% according to tourist numbers and accommodation data; therefore, İzmir has to implement a multifaceted tourism policy for converting its tourism potential into a development tool and prosperity source (Aykaç Yanardağ; Yanardağ, 2009).

Within the ranking list of provinces employing the gates that have the most number of entries by the foreign visitors to our country within January-October period of 2008; İzmir is at 5th place with a 4.01% share following Antalya (34.25%), İstanbul (25.37%), Muğla (11.91%) and Edirne (9.08%) (Ministry of Culture and Tourism, 2009a).

When the number of foreigners visiting our country are analyzed in terms of exiting portal and transportation paths, it is seen that Adnan Menderes Airport of İzmir is

the 6th border point having the most number of entries within Turkey with a share of 2.7%. In terms of foreigners exiting, Adnan Menderes Airport is at the 7th place with a ratio of 2.8% (TÜİK, 2006b).

Examining the distribution of domestic and foreign tourism by provinces, it is observed that Antalya, Muğla, Aydın and İstanbul attract more foreign tourists while İzmir attracts more local tourists. This situation shows that İzmir at its current conditions provide services rather towards domestic tourism (Aykaç Yanardağ; Yanardağ, 2009).

Antalya, Muğla and İstanbul have a steady competitive power in tourism. İzmir competing with the tourism in these provinces can only be a long term goal. On the other hand, the resource problems experienced in these provinces point out that the growth in these provinces is not a very desirable situation when aiming for a tourism-based development model. In other words, assessment of the values may show that these provinces display a successful profile for the last five years, but not that this status shall bring a sustainable and long term success. Therefore, the actual critical point for İzmir is not rising within this ranking list but creating an alternative tourism model not presented by these provinces and conduct tourism with its own, authentic assets (Aykaç Yanardağ; Yanardağ, 2009).

In short or middle term, the goal of İzmir is increasing its competitiveness against Aydın and Muğla which are both statistically and geographically close to the province. İzmir should raise its competitiveness against Muğla regarding local tourists and Aydın regarding foreign tourists. For instance, although Ephesus and the House of Virgin Mary are situated in İzmir, a major portion of visitors stay the night at Kuşadası. In this regard, İzmir loses a populace, who should instead stay in Selçuk and bring income to the local population, to neighbouring provinces. In this sense, Selçuk should use its tourism resources for local development by strengthening its own tourism infrastructure (Aykaç Yanardağ; Yanardağ, 2009).

Most of the tourists who entered through İzmir province border points in 2008 are foreign (73.31%). Among the foreign tourists coming to İzmir, the first place belongs to German tourists as the case

throughout the country in general. Following Germany, the highest number of tourists comes to İzmir from Italy, France and England respectively. As can be seen from Figure 69, İzmir province is extensively preferred by Italian tourist despite country general. While Russia is the 2nd country regarding number of tourists visiting Turkey, it is at 11th place in İzmir (İzmir Provincial Directorate of Culture and Tourism, 2009; Ministry of Culture and Tourism, 2009a).

İzmir attracts tourists especially from European countries, while on the other hand, countries that are listed among countries with high tourism spending such as China, Korea and Canada do not send many tourists

Average stay duration of foreign tourists in İzmir is below Turkey average, stay duration of local tourists is equal to Turkey average and overall stay duration average is again below Turkey average. In İzmir the average occupancy rate of facilities is 45.65% which is below Turkey average of 54.65% (Ministry of Culture and Tourism, 2009b).

3.d.3.a. Accommodation Infrastructure

In İzmir, the highest share regarding number of beds among accommodation facilities with tourism investment certificates belongs to 4 star facilities (31.74%). Districts housing the highest number of beds

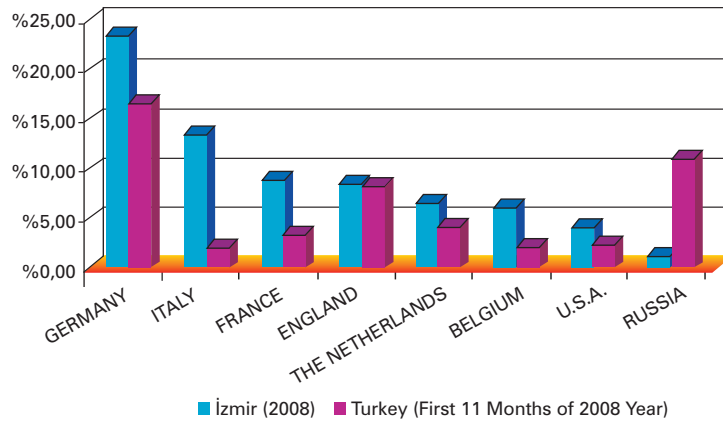


Figure 69: Distribution of Foreigners Entering İzmir and Turkey by Nationality

Reference: İzmir Provincial Directorate of Culture, 2009; The Ministry of Culture and Tourism, 2009a

to İzmir. In this regard, creating awareness and publicity at different geographies is of crucial importance for İzmir tourism. When evaluating the international scale of İzmir tourism, these countries should be assessed in terms of both foreign capital investments and tourist demand (Aykaç Yanardağ, Yanardağ, 2009).

The distribution of foreign tourists visiting İzmir by months points out that the touristic demand concentration begins from June and continues until the end of September. The fact that the most important attraction aspect of İzmir province is the sun-sand-sea tourism causes a demand concentrating around the traditional tourism months, resulting in a four month tourism season (İZKA, 2008).

in accommodation facilities with tourism investment certificate are; Çeşme (26.45%), Seferihisar (22.69%), Dikili (17.01%) and Menderes (12.90%) respectively (İzmir Provincial Directorate of Culture and Tourism, 2009a). The highest share regarding number of beds among accommodation facilities with tourism establishment certificates belongs to 5 star facilities (28.25%). Districts housing the highest number of beds in accommodation facilities with tourism establishment certificate are; central districts⁴⁸ (32.85%), Çeşme (20.15%), Selçuk (17.97%) and Menderes (15.47%) (İzmir Provincial Directorate of Culture and Tourism, 2009b).

Regarding the number of establishments and size of establishments; we may mention that only Çeşme has

⁴⁸ Districts under the context of central districts within the mentioned study are defined as: Balçova, Narlıdere, Konak, Karşıyaka, Bornova, Gazimur

reached a distinct facility number outside provincial centrum. The situation is also not different regarding international tourism. It may be mentioned that, outside of İzmir provincial centrum, only Çeşme is an international tourism destination (Aykaç Yanardağ; Yanardağ, 2009).

It is observed that the tourists coming to the hotels in İzmir within year 2007 dominantly prefer (33.69%) the 5 star hotels. Also, the number of locals coming to the facilities in İzmir is more than twice the number of foreigners (Ministry of Culture and Tourism, 2009b).

Analyzing the distribution of facilities in İzmir with Ministry of Culture and Tourism certificates, it is seen that İzmir is more concentrated in facilities meeting the demands of middle class local tourists and lacks facilities towards higher class, especially foreign and more income yielding tourists. In this sense, regarding establishment types, the 5 star hotels may be an investment alternative and can provide profitability by attracting high income tourists. However, these establishments have disadvantages in regards to sustainability. Developing boutique hotels for providing customized and personal service to high income tourists would be suitable for İzmir. The number of and demand for such hotels are on the rise in Alaçatı and Şirince. Also camping and trailer parks compatible to local structure, small scale pensions may all be considerable options for İzmir. When evaluating investment possibilities in terms of establishment types, the concept of niche market constitutes a general framework for investments. The important thing is not increasing the same type of establishments in number but making investments towards demand unmet within the market (Aykaç Yanardağ; Yanardağ, 2009).

3.d.3.b. Tourism Diversity

İzmir, with its geographic location, variety of historical and cultural assets, and its infrastructure aimed at mass tourism based on sun-sand-sea tourism, has a wide tourism range. Also, the fact that İzmir, undergoing an industry and commerce based development process, have not yet utilized its tourism potential in a real sense up to this day points out that the demand for tourism investment is still high. The tourism policies to be implemented in İzmir should be diversified in

compliance with the diversity found in İzmir. In this regard, İzmir should be handled under four main regions that are the Peninsula Region, İzmir Centrum, Northern İzmir Districts, and Eastern and Southern İzmir Districts (Aykaç Yanardağ; Yanardağ, 2009).

With its potential in sea tourism and its historical assets, İzmir is within the group of provinces with developed tourism sector in the Aegean Region along with Aydın and Muğla. İzmir is the 2nd province in the Aegean Region housing the highest number of travel agencies. The first place in this regard belongs to Muğla (Soybalı; Baytok, 2007). Çeşme coming foremost, Selçuk, Foça and Karaburun districts are important tourism centres of İzmir (Soybalı; Baytok, 2007).

According to Turkish Foundation for Environmental Education (TÜRÇEV) data, İzmir is the 3rd province of Turkey with the highest number of blue flag awarded beaches as of 2008. The first two places belong to Antalya (143 beaches) and Muğla (57 beaches). The number of blue flag beaches in İzmir had been 29 back in 2006, while this has declined to 23 in 2007 and 21 in 2008. İzmir province had 2 blue flag awarded marinas back in 2002, however this number has been 1 in the following 4 years, and dropped down to 0 in 2007 and 2008 years (TÜRÇEV, 2008).

İzmir has a considerably rich structure also regarding natural resources other than the sea. Ödemiş Bozdağ, Dikili Kalem Island, Şirince vineyards, Kuşçenneti (İzmir Bird Sanctuary), Yamanlar Mountain and Karagöl, hot spring resources at many districts with Balçova coming foremost may all be given as examples of İzmir's natural resources with tourism potential. However, it is difficult to say that many of these resources are effectively used and they bring socioeconomical gains. For instance, Şirince has been overly commoditized as a tourism destination that gained considerable even redundant popularity, and thus in this sense put its authenticity in jeopardy; while Dikili Kalem Island, has displayed a much more limited development with boutique hotel approach, limiting its income while maintaining sustainability. Similarly for all other regions which have yet limited place within tourism sector, all plans should be devised by keeping sustainability and rational use of resources principles in mind (Aykaç Yanardağ; Yanardağ, 2009).

Aegean Region is the richest region of our country regarding thermal resources, and İzmir likewise houses these thermal resources. With this feature and its climate properties, İzmir bears potential regarding geriatrics (elderly health) tourism (Soybalı; Baytok, 2007). Within the framework strategy of the Ministry of Culture and Tourism, İzmir is one of the 17 provinces in which strategies towards development of thermal tourism infrastructure and superstructure shall be executed until the year 2023 (Ministry of Culture and Tourism, 2007).

İzmir is one of the 7 provinces with infrastructure suitable for conference tourism throughout Turkey. Also, İzmir is one of the 4 exhibition provinces of primary significance (Ministry of Culture and Tourism, 2007). Conference tourism is of utmost importance for Turkey and İzmir to create added value and to be developed as result. The reason of that is, the social and cultural life of the city also changes with the development in this field; hotels are built, restaurants are established, entertainment sector develops, and cultural activities increase. All of these are initiatives compliant with both the past and current characteristics of İzmir (Aykaç Yanardağ; Yanardağ, 2009).

Another very important touristic resource of İzmir is its historical and cultural assets. Some of these assets are İzmir being a settlement place since thousands of years ago, Tepekule mound, Ion ruins, Klazomenai ruins where olive oil had first been produced, Ephesus, Bergama, Lebedos, Teos, Allianoi, Erythrai ruins. Considering the nearer eras, İzmir being of a cosmopolitan structure during Ottoman Era, and thus the traces different cultures left on the social and spatial texture of the city would attract a different touristic populace. For instance, the city having housed a significant Jewish society and this situation still continuing, the historical existence of Sabbatai Zevi in this place, historical traces of Jewish settlements are likewise significant aspects due to appealing to a very special populace. In the same time İzmir is a harbour opening to Europe, the place where railway lines had been first constructed in Anatolia, and a candidate for being a world city as the modern face of Turkey as a foremost exemplary to Turkish modernization regarding both the renovation of city structure and the mission born with İzmir Economy Congress. This modern

profile shall constitute the basis rather for “urban tourism” (Aykaç Yanardağ; Yanardağ, 2009).

Yet another crucial feature of İzmir regarding tourism potential is its being the third biggest city of Turkey as a metropolitan city. The concept of “world city” that emerged together with globalization was initially used to define the cities represented by the metropolises -such as New York, Los Angeles, London, and Paris- of developed countries. However, with the developing countries also appearing more and permanently within the global economy, these countries also began investments towards transforming their own metropolises into 'world cities'. Among these new world cities to which Bombay, Shanghai, New Delhi from Asia and Prague, Bucharest and Budapest from Eastern Europe may be given as examples, it is possible to name only İstanbul from Turkey. However, it seems very possible for İzmir to rank within this list with correct planning and investments. İzmir being a candidate for EXPO, Prime Minister Recep Tayyip Erdoğan holding the Turkish-Italian Governments Summit with Italian Prime Minister Silvio Berlusconi in İzmir, the International İzmir Fair, and all other fairs and exhibitions held throughout the year are all necessary but unfortunately insufficient aspects towards becoming a world city. On the other hand, subway construction, urban transformation projects, establishment of top class hotels and world cuisine restaurants are also developments towards a world city profile (Aykaç Yanardağ; Yanardağ, 2009).

The widespread utilization of agriculture sector in districts (especially eastern districts) outside of central and coastline districts constitutes resource towards the concept of “rural tourism” that comes up in tourism especially in the frame of sustainability. Developing a tourism approach integrated with nature sports that should be arranged at seasonal scale may prove beneficial for the development of this field that is not very commonly provided within tourism market. However, a serious amount of investment and a mass scale contribution of local population is necessary for the development of this tourism branch. Individual investments would not provide the necessary amount of publicity and suffer difficulties in providing demand continuity (Aykaç Yanardağ; Yanardağ, 2009).

When the number of touristic enterprises, prominent

tourism destinations and tourism types, and distribution of these within Centrum and districts in İzmir are evaluated; it is seen that Centrum (city centre) has the largest potential regarding tourism, while the following Menderes and Selçuk districts that are relatively virgin have rising positions. These are regions awaiting attention regarding both investment and tourism related development. The Peninsula Region has joined tourism only with Çeşme, despite its richness in touristic assets (Aykaç Yanardağ; Yanardağ, 2009).

Assessing investments suitable for İzmir in terms of tourism types; initially conference tourism and thermal tourism should be developed, considering the relatively ready infrastructure and the relatively developed publicity of Centrum and central districts. İzmir should utilize its richness regarding sea tourism rather by creating an alternative sea tourism such as sea sports, yacht tourism and blue cruise, instead of mass tourism. In other words, a larger market share should be aimed by

adding newer tourism types to the already existing types. Lastly, the options towards rural tourism and ecologic tourism (ecotourism) should be evaluated by considering the districts without tourism potential and coastlines (Aykaç Yanardağ; Yanardağ, 2009).

In conclusion, it may be said that the districts of İzmir prominent in tourism are Konak, Çeşme, Selçuk, Menderes, Foça and Balçova. Bergama, Dikili, Karaburun, Ödemiş, Seferihisar and Urla remained backwards regarding publicity and investment and could not take their shares from the market despite carrying tourism potential in terms of resources. In districts except Selçuk and Menderes, local tourist demand is the determining variable. Local tourists especially prefer sea-based tourism types. Selçuk and Menderes are dominantly preferred by foreign tourists; inclining towards culture tourism due to the ancient city of Ephesus, Selçuk Museum and other historical ruins city. This distinction is significant regarding the planning

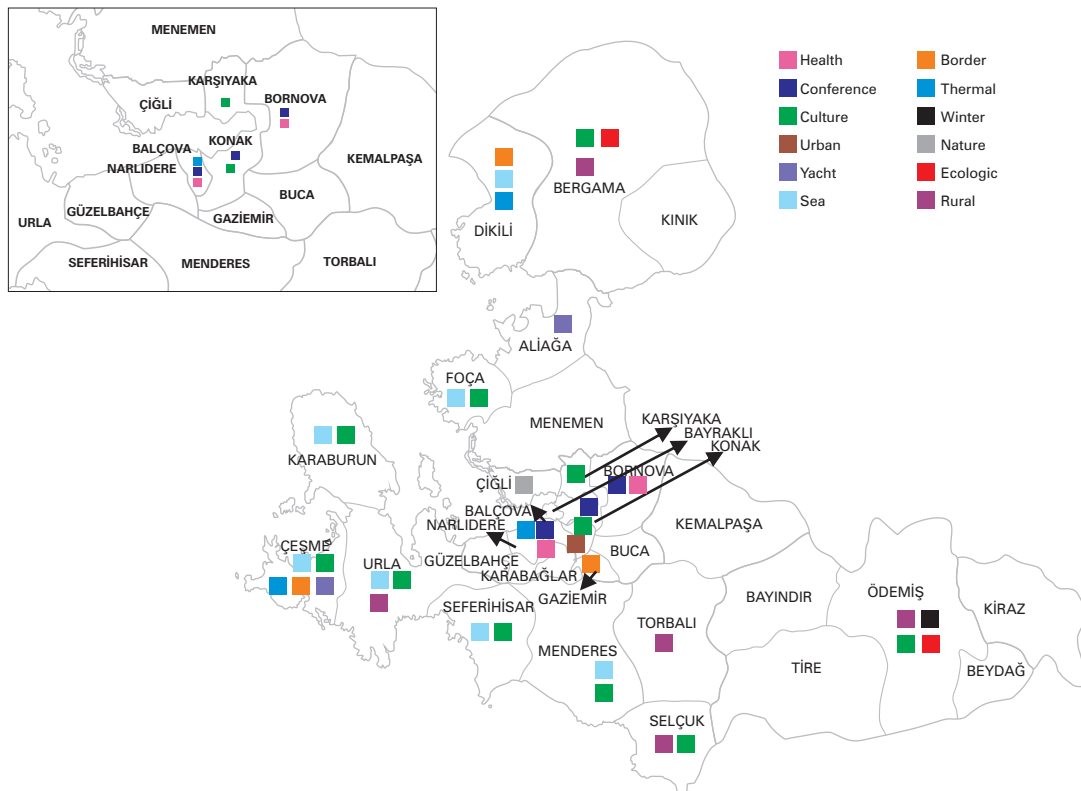


Figure 70: Tourism Types Suitable for İzmir Districts
Reference: Aykaç Yanardağ; Yanardağ, 2009

of tourism investments to be conducted at districts. Balçova has acquired a striking position within all rankings for being the only district of İzmir where thermal tourism is implemented. Despite the limited number of facilities and bed capacity, it has shown a considerably successful profile. Considering there are other districts possessing thermal resources, thermal tourism investments should be utilized in İzmir (Aykaç Yanardağ; Yanardağ, 2009). Figure 70 displays which tourism types are suitable for the districts of İzmir.

İzmir and its districts possess natural, historical and cultural assets that can be utilized in various tourism types. The first important point to consider regarding the effective utilization of these assets is restraining the mass tourism approach that is suitable for short term profiting but may in long term rapidly exhaust the resources and provide profit only for the large capital; and instead of this, the “sustainable tourism” approach, which will benefit in long term and from which not only the capital but also local public shall benefit, should be implemented. Preservation of authentic assets, outage problem, infrastructure, publicity, zoning and territorial preservation are also aspects to be taken into consideration when planning tourism investments in İzmir (Aykaç Yanardağ; Yanardağ, 2009).

3.e. Evaluation

Although İzmir is the third most developed province of Turkey, it strikes attention that Bursa and Kocaeli provinces have realized faster development during the last years and approached close to İzmir regarding their development levels. For instance, the overall export share of Bursa has become higher than İzmir overall export share and the industry sector export amount of Kocaeli has become higher than İzmir industry sector export amount. İzmir province was having foreign trade surplus until year 2003, while after this year it began having foreign trade deficit for the last 5 years. In fact, İzmir that possess rich natural, historical and cultural resources, a developed industry sector, and educational, scientific and technological opportunities has the potential to become the second most developed province of Turkey.

At this point, how to use the existing potential and what

to be done are subjects of importance. First of all, the multi-sectoral economic structure of İzmir proves not to be an advantage but a disadvantage. The sectors İzmir shall specialize on should be found out according to objective and scientific approaches. The Strategic and Rising Sectors of İzmir Report issued in 2007 shows that the rising and strategic sectors in İzmir can be handled under three main groups. The first group covers the industry sectors related to the agricultural production of İzmir. The second group encompasses high-tech industries that may be further developed by benefitting from existing R&D, university and qualified workforce opportunities. And the last group covers business support activities that support other sectors and thus improve the feature of being a metropolitan city and service centre.

When determining the economic activities İzmir shall specialize on and the policies and strategies towards these activities, the income distribution inequalities between districts and the differences in districts' economic structures should be taken into consideration. At current situation, it is observed that the Centrum and central districts of İzmir are concentrated more on industry and services sectors while the outer districts at perimeter are concentrated more on agriculture sector.

In İzmir where agriculture sector is an important economic activity, and especially at the districts far from centre, the fundamental source of income is agricultural activities; policies towards increasing the income obtained from agriculture should be developed. For making assessment on İzmir province's agriculture, provincial values along with national and international developments related to agriculture should be taken into consideration. In the event Turkish agriculture gets to be a member of EU, in other words harmonized with the Common Agricultural Policy (CAP), the prices of agricultural products in Turkey and EU shall be equalized. Prices of most of the agricultural products in Turkey, especially animal-based products, are significantly above EU values. In result of price changes to emerge due to equalization between agricultural products, price decreases are expected in most cereal products (wheat 31%, barley 18.9%, corn 47.1%), animal-based products (red meat 35.6%, cow milk 36.9%, lamb 47.1%, chicken 17%) and oilseeds (sunflower 22.2%). In some industrial plants (cotton

25.8%, tobacco 0.1%) and fruits-vegetables (apple 17.6%, orange 2%) increases are to be expected (Çakmak and Kasnakoğlu, 2001). With developments that may occur within CAP towards liberalization in the coming years, it is indicated that even more drastic decreases may be experienced. As a matter of fact, World Trade Organization (WTO) has begun playing a more effective role for the liberalization of agricultural products foreign trade, and this impact is one of the shaping aspects of CAP. In analyses conducted, it is foreseen that as Turkey becomes a member state in EU, all of the subsistence and a major portion of semi-subsistence establishments in agriculture will retire from production (TKB, 2007a).

Turkey, due to being a candidate for EU membership, is included within the Instrument for Pre-Accession Assistance (IPA) program of which budget is majorly financed by EU. Rural Development resides within IPA as a component and is named as Pre-Accession Assistance for Rural Development (IPARD). IPARD Plan of Turkey shall be implemented within 2007/2013 period and its budget for 2007/2011 period is 436 million euro and 800-850 million euro for 2007/2013 period. The plan shall be implemented in prioritized sub-sectors within 43 provinces determined within the framework, under the main goals of sector modernization including product processing and sustainable development of rural areas. İzmir is not included among these provinces. Among provinces geographically bordering or agriculturally similar to İzmir; Aydın, Manisa, Balıkesir, Bursa, Çanakkale, Denizli, Isparta, Uşak and Afyonkarahisar were included within IPARD Plan (TKB, 2007).

In order to minimize the possible adverse effects of EU membership and IPARD Program on İzmir, competitiveness of the enterprises should be improved. For reaching that purpose, realization of land consolidation and completion of irrigation infrastructure are among the first actions to be taken. Enterprises' reaching competitive sizes is of crucial importance within this process. Moreover, organized acting culture of producers should be developed, production efficiency should be improved while taking agricultural sustainability into consideration, and agriculture-industry integration should be realized. In addition to agricultural production; supporting

agricultural product processing, storage, marketing and pressure irrigation are all aspects of importance. Also, both agricultural establishments and agriculture-based industrial enterprises should reach and meet the standards defined within EU legislations that are considered to completely become country legislation in middle term.

For the purpose of improving competitiveness of agricultural sector, organized acting culture of producers should be developed, production efficiency should be improved while taking agricultural sustainability into consideration, and agriculture-industry integration should be realized. Furthermore, considering that the interest towards organic agriculture is on the rise and its market share also inclines towards increasing, organic agriculture of İzmir should be supported.

Among manufacturing industries, the agriculture-based industries titled manufacture of food and beverages and manufacture of clothing are flash sectors of İzmir and need to be developed. Considering the region's existing universities, qualified workforce potential and recent worldwide trends, the high-tech industries titled manufacture of office machines and computers and manufacture of medical devices are the second most important manufacturing industries. Almost all of the companies within industry sector are micro enterprises and SMEs. Institutionalization of such companies that are the leading force of flexible production, and increasing their marketing capacities are two goals of importance for the region.

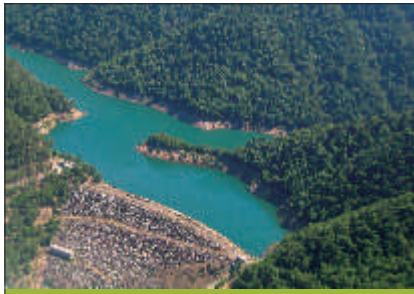
İzmir possesses the natural resources of wind and geothermal energy potentials. Developing and diverting the production and consumption to this sector is of importance in our current day considering the constantly increasing significance of energy efficiency. Generating technology, supporting R&D projects, improving human resource and developing renewable energy infrastructure for wind, geothermal, sun and biomass energy sectors are all important aspects. Renewable energy sector is one of the key sectors in affecting regional development and thus the investment actions in this field are essential for this region.

For the purpose of strengthening the trade centre feature of İzmir, harbour capacity should be expanded and

connection roads should be developed. Furthermore, in order to increase the export values of products produced in İzmir, policies should be developed towards increasing competitiveness at international markets. The axis of these policies should be competition based on technology and quality in production.

Convergence point of history, culture, nature and sea, İzmir is one of the important tourism centres of Turkey. However, the tourism potential of İzmir is not being utilized sufficiently effective. Initially, both public and private investments aimed towards tourism in İzmir should be increased. In addition, for income obtained through tourism to increase, tourism should be diversified and different tourism types should be integrated, while also improving service quality within tourism. And the most important action should be the effective advertisement of the touristic assets and tourism opportunities possessed by İzmir.





4

ENVIRONMENT





İZMİR SITUATIONAL ANALYSIS



4.a. Water and Wastewater Management

Annual usable water potential in İzmir is 2 billion 564 million m^3 . Annual usable water potential per capita is at an average of 614 m^3 and thus 63% lower than Turkey average (DSİ, 2008). According to the water sufficiency index recognized worldwide, the water amount per capita should be 2000 m^3 . Regions below this value are defined as experiencing water shortage, while regions having water potential amount below 1000 m^3 per capita are defined as water poor. Therefore in the water poor province of İzmir, the issue of water management should be handled with utmost care.

46% of İzmir province surface water potential is in Küçük Menderes basin, 29% in Bakırçay basin, and 6% in Gediz basin (Silay; Tomar, 2009). Underground waters meet 90% of the overall water consumption in the province, and 32.5% of the underground water potential of the province is utilized for drinking and utility water, and 51% for irrigation and industrial purposes.

Approximately 70% of the overall water consumption in İzmir is utilized for agricultural, 15% for domestic and 15% for industrial purposes. It is observed that a significantly high amount of overall consumption is utilized for irrigation purposes in İzmir.

The importance of the underground waters that have a utilization ratio of 90% is crucial for İzmir. Along with this, basins that constitute a major portion of surface water sources are also among important water sources of İzmir.

In İzmir, the ratio of the population provided drinking

and utility water to the overall municipality population is 97% and this value is very close to the countrywide average value (98%). Compared to year 2004, a decrease equal to 2% has been experienced but the reason of this is the alteration of municipality borders. On the other hand, the ratio of the population serviced with treatment plant to the overall municipality population is calculated to be 29% as of 2006. This ratio is below the Turkey countrywide value of 49% (TÜİK, 2008).

40% of the drinking water demand is met through dams (Tahtalı 100 million m^3 ; Balçova 6 million m^3), and 60% through 94 deep wells (Menemen underground water, Halkapınar springs and Göksu and Sarıkız springs in Manisa province). The hazardous elements discovered within the underground water have been begun to be eliminated with İBB establishing and activating treatment plants. 3 treatment plants have been put into service by İZSU at half capacity; complete capacities shall be activated stage by stage. Among these plants, Göksu Sarıkız Treatment Plant is going to be the biggest treatment plant worldwide. Due to decreases in water flow rates because of drought, and the discovery of arsenic in some wells; an additional 22 wells have been dug by İZSU (İZSU, 2009).

Regarding drinking water supply, water shortage problems were not expected to be experienced in regions within İBB borders until Law no 5216. However, regarding the districts included into the province with this Law, quantitative and especially qualitative problems exist. Chlorination and water storage services are required at these regions and villages within perimeter districts (İZSU, 2008). According to the TÜİK 2006 data issued regarding the municipality

population provided service with drinking and utility water network; necessity for investment has been declared for Menderes (Özdere, Tekeli), Ödemiş (Bademli, Gölçük), Bayındır (Zeytinova), Bergama, Beydağ, Çeşme, Dikili, Foça (Gerenköy) territories (TÜİK, 2008).

Considering the ratio of the population serviced with wastewater treatment plant (WTP) to the overall municipality population in İzmir, it is seen that this value did not increase between 2001-2006 years and is at a level of 76% (TÜİK, 2008). In developed countries, especially in regions of touristic value, this value varies between 85% and 100% (EUROSTAT, 2005). Moreover, this value is also below the ratios in Ankara (86%) and İstanbul (81%) provinces (TÜİK, 2008). Works towards wastewater treatment continues on in Aliağa, Bayındır, Foça, Kemalpaşa, Menderes, Menemen, Seferihisar, Torbalı, Urla districts that have been included in İBB borders afterwards (İzmir Healthy City Profile, 2008). However, along with these districts, Beydağ, Tire, Kınık, Ödemiş districts are also listed within areas in need of wastewater-related investments (İzmir Provincial Directorate of Environment and Forestry, 2009).

Considering the ratio of municipality population serviced with sewerage grid, it is observed that Aliağa, Bayındır, Bergama, Beydağ, Çeşme, Dikili, Kiraz, Menemen, Ödemiş, Selçuk, Torbalı districts needs further investments in this field (TÜİK, 2008). Especially in Karaburun district, the population ratio provided with sewerage grid is only 40%, and considering the blue flag beach potential of Karaburun it can be seen that this problem should be resolved urgently.

Especially regarding the water basins and the socioeconomic values they bear, the importance of wastewater issue becomes even more prominent. Basin-based evaluations shall be re-emphasized within the section titled Basin Areas.

On the other hand, the problem of sea pollution and its sources in İzmir, a province of high tourism value,

should be evaluated with care. In the section titled Sea and Coastal Areas, further evaluation exists in this regard.

4.b. Solid Waste Management

The overall domestic solid waste amount in İzmir is approximately 4320 tonnes/day.⁴⁹ When the ratio of the population provided with solid waste service to the overall population is analyzed, it is seen that as of year 2006 İzmir is above the Turkey and Aegean Region average values by approximately 10% with its value of 93%. Districts in need of further works regarding solid waste service are; Ödemiş (Bademli, Bozdağ, Çaylı, Kayaköy, Konaklı, Ovakent, Gölçük), Seferihisar (Ürkmez), Güzelbahçe (Yelki), Bayındır (Çırpı), Beydağ, Dikili, Foça and Kemalpaşa (Bağyurdu) districts (TÜİK, 2008). Also, the wastes formed in Kınık, Kiraz, Tire, Torbalı, Selçuk districts are stored in a disorganized way (Provincial Directorate of Environment and Forestry, 2009).

While in a good position regarding solid waste collecting service, İzmir experiences capacity inadequacies regarding disposal services. The wastes are disposed of in Harmandalı Regular Landfill Site, Uzundere and also Menemen Compost Plant. The waste collected just within İBB borders equal to 3,634-3,935 tonnes/day. As of year 2007, the total amount of domestic solid wastes disposed of in Harmandalı Landfill is 2,758 tonnes/day and the landfill is receiving approximately 1.5 times more wastes than its default capacity of 1,800 tonnes/day. The amount of wastes disposed of in Harmandalı increases by an average of 10% per year. Uzundere, with the received domestic waste amount of 337 tonnes/day in 2007, have not exceeded its capacity of 500 tonnes/day; however the domestic waste amount disposed by Uzundere has increased by 16% since 2003.⁵⁰ Regarding the construction of a Regular Landfill Site in Torbalı, the preliminary allocation stage has been reached.

There are 4 transfer stations in İzmir with a capacity of 1304 tonnes/day (Halkapınar, Kısık, Gümlükdür, Gediz), however the capacity of transfer stations is

⁴⁹ Calculated according to Provincial Directorate of Environment and Forestry, 2008 and İBB, 2008 data.

⁵⁰ Calculated by utilizing the İBB İzmir City Health Profile 2008 data.

insufficient. There are investment projects for building transfer stations in Urla, Helvacı, Kemalpaşa and Selçuk, and these were planned to be completed in year 2009.

Additionally, in order to provide service to the district and first level municipalities that were connected to İBB with the Law no 5216 coming into force in 2004, 22 out of 26 confirmed irregular waste storage areas have been closed down and waste collection has been regularized. Wastes of these regions have been redirected to solid waste transfer stations or disposal plants. There are still 4 remaining irregular waste storage areas in Aliğa, Kemalpaşa, Mordoğan and Torbalı. These 4 areas are being used by 10 different municipalities (Aliğa, Bayındır/Çırpı, Mordoğan, Kemalpaşa, Bağyurdu, Ören, Yukarıkızılca, Armutlu, Torbalı, Çaybaşı) for waste storage purposes (İBB, 2008).

The amount of waste collected just within İBB borders varies between 3,634-3,935 tonnes/day as of year 2007. Approximately 49.5 tonnes/day of this waste is collected within the context of recycling and the ratio of this amount equals to approximately 1%. Yet, 36% of the domestic solid waste composition within İBB borders is constituted by organic wastes, and 25% by recyclable wastes such as plastic, paper, glass, carton and metal wastes (İBB, 2008). This situation points out to the necessity of increasing the recovery rate in waste management. In result of the studies encompassing the recovery facilities of Harmandalı Regular Waste Storage Plant, Uzundere Compost Plant, Glass Safes and 9 districts that constitute solid waste separation project zone, it is observed that the waste amount collected is at a low ratio compared to the total recyclable amount that can be collected. For conducting recovery works of the collected wastes, the Ministry of Environment and Forestry has given temporary work permit to 5 enterprises and licence certificate to 17 enterprises that function within İzmir province borders. On the other hand, within the overall renewable energy, waste management and recycling sector, there are a total of 1,192 companies registered under Turkey recycling and waste management portal. 116 of these are companies established in İzmir province. That means a 10% ratio of this sector has agglomerated within İzmir, and this fact points out to the region's capacity regarding waste recovery.

4.c. Air Quality

The sources of air pollution in İzmir province are the fuels consumed in transportation, industrial plants, and heating purposes during winter. In the İzmir Province Clean Air Plan prepared in 2001, it has been indicated that sulphur dioxide (SO_2) from industrial plants, smoke i.e. the suspended particulate matters (PM_{10}) from domestic heating, nitrogen oxides (NO , NO_2 and NO_x), volatile organic compounds and carbon monoxide from traffic have become the most important sources to air pollution (İBB, 2008).

Cement factories, stone quarries, crushed stone facilities, asphalt facilities and iron-steel factory that have been surrounded by or become adjacent to the city due to wrong placements are all industrial facilities that will adversely affect urban air quality. Especially the Aliğa based iron-steel plants with electric arc furnaces (facilities manufacturing steel out of scraps), ship dismantling facilities, refinery, petro-chemistry and gas filling facilities, rolling plants and other facilities that are classified as “facilities with high pollution characteristics” within regulations are the most important air pollutants in İzmir. That is because the pollutants discharged through flues to the atmosphere can be conveyed to long distances with the impact of dominant winds and thus the pollution in Aliğa reaches İzmir city centre (İBB, 2008).

There are six air quality measurement stations within İzmir, namely at Alsancak, Bornova, Karşıyaka, Güzelyalı, Çiğli and Buca. Also, the Ministry of Environment and Forestry collects measurement values from Gaziemir Measurement Station. However, in industrial zones such as Aliğa, Torbalı, and Kemalpaşa, there are no air quality measurement stations. In Figure 47, the trend of values measured between years 1996-2008 is shown. When these values, which indicate the daily average levels calculated through the instantaneous measuring obtained from continuous measurement stations, are analyzed, it may be observed that the PM_{10} and SO_2 levels in the air are in a general trend towards declining. The increase seen in PM_{10} levels during 2006 and 2007 years is thought to stem from the natural gas and other infrastructure works within the city. Limiting of the quality the fuels used for domestic heating and industry, and the inspection of consumed fuels played

important roles in this decrease. The other important factor is transition to natural gas for industry and domestic heating purposes. With universalization of clean energy utilization in domestic heating, these levels shall continue improving.

In addition to the measurements of İBB and Ministry of Environment and Forestry, the levels and sources of the pollution in Aliğa territory has been investigated in a

earth levels of the pollutants within Aliğa Nemrut territory which is dense in heavy industry have been researched with the recent studies conducted by DEÜ Department of Environmental Engineering. The results showed that the region is under the influence of dense pollution regarding trace elements (lead, cadmium, zinc etc.) within particulate matters and also organic pollutants (İBB, 2008).

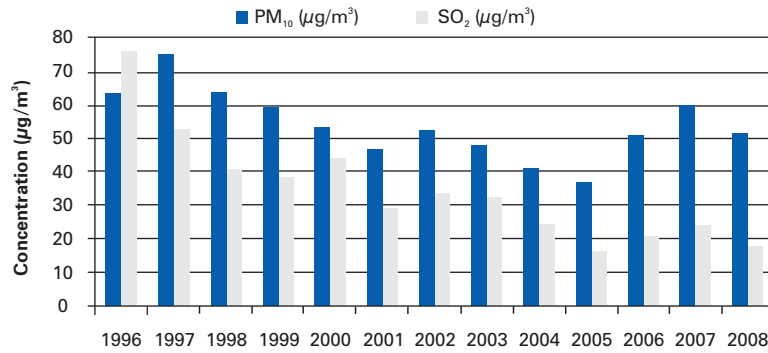


Figure 71: Annual Averages of SO₂ and Particulate Matter Concentrations
Reference: Bayram, 2008: p.237

study conducted between years 2005-2007 by Middle East Technical University, DEÜ and İYTE in collaboration with TÜBİTAK, İBB and Aliğa Municipality (Tuncel et al, 2008). In this study, according to the average values of the measurement results obtained in Aliğa district centre and Horozgediği industrial zone, the inorganic gas levels measured are not significantly high while the particulate matter levels are very high. Considering the air quality

The air pollution limit values valid in our country are given in Table 17. In fact, with the Regulation of Air Quality Assessment and Management that has come into force by being issued in the Official Journal dated 6th of June 2008; the limit values valid within EU have been adopted. However, transition to these limit values shall be made in stages. The current limit values given in Table 17 shall decrease according to years and reach the aimed limit values as of year 2014 (Bayram, 2008).

Table 17: Limit PM₁₀ and SO₂ Values in our Country

Parameter	Unit	Existing Short Term Limit Value (STE)	Existing Long Term Limit Value (LTE)	Aimed Short Term Limit Value (STA)	Aimed Long Term Limit Value (LTA)
PM ₁₀	µg/m³	300	150	50	40
SO ₂	µg/m³	400	250	125	20

limit values of our country will change with the passing years and the future aim limit values, it is seen that the particulate matter pollution in question should be eliminated (Bayram, 2009).

Also, the permanent organic pollutants, sources, air and

According to measurements conducted, although the existing limit values of PM₁₀, SO₂ parameters are not exceeded in İzmir city centre and surrounding area, considering that also the number of days the limit values are exceeded will be taken into consideration in the legislations that shall be updated in the framework of

EU harmonisation process, works towards the problems mentioned regarding air pollution should be executed in İzmir. Also, regular air quality measurement stations should be installed in Kemalpaşa, Torbalı and Aliğa districts. Aliğa and Nemrut are territories experiencing the heaviest air pollution due to industrial pollution. In addition, the areas where cement factories are concentrated in İzmir prove to constitute problems in terms of air pollution.

4.d. Industrial Pollution and Its Control

There are a total of 10 OIZs in İzmir, of which 6 have been put into service completely or partially (Aliğa, Atatürk, Buca, Kemalpaşa, İTOB Tekeli, Tire), and 4 is planned to be put into service (Bergama, Kınık, Ödemiş, Pancar). Considering SIAs (Small Industrial Areas), in the industrial areas within the municipality adjacent area prior to Law no 5216 have no central treatment plants, and among the 1401 enterprises in these areas only 26 have fine treatment and 23 have pre-treatment applications (İZSU, 2009). 16 SIAs that

cover 7,182 of the 8,585 enterprises in the total 23 SIAs of İzmir⁵¹, are located in different districts and have no treatment plants. Also, the actively worked Aegean Free Zone and Menemen Free Zone are also areas of concentrated industry. The present situation for the OIZs and Free Zones regarding WWTP are as given in the below table.

Environmental, WWTP-related investments are seen crucial for OIZs in Kemalpaşa, Aegean Free Zone and new OIZs about to be put into service. In addition, considering the results of the survey conducted on OIZs and Free Zones in February 2009 by İZKA, the cost of electricity consumed by treatment plant is said to be one of the most important problems in industrial zones with existing WWTPs. For instance, monthly treatment electricity cost constitutes approximately 40% of the total costs in Menemen Free Zone. As was mentioned within the Economic Structure section, only 37% of the establishments in OIZs are connected to central or single WWTP, while in Free Zones this ratio happens to be only 16%. However, as it may be understood with the

Table 18: Wastewater Treatment Plant (WWTP) State of the OIZs in İzmir

İzmir	Number of Active Establishments	State of Plant
Aliğa	11	Domestic WWTP exists. One establishment implements chemical treatment.
Atatürk	526	WWTP exists. Deep sea discharge exists.
Buca (Aegean Clothing)	50	WWTP exists. (No wet process)
Kemalpaşa	179	No WWTP exists. Legal entry is brought into court, proceeding underway. WWTP is in specifications and construction is in tender stage.
İTOB Tekeli	34	WWTP exists.
Tire	30	WWTP exists.
Bergama	0	No WWTP exists.
Kınık	0	No WWTP exists.
Ödemiş	0	No WWTP exists.
Pancar	0	No WWTP exists.
Aegean Free Zone	384	No WWTP exists. 11 out of 131 functioning establishments have pre-treatment.
Menemen Free Zone	37	WWTP exists but stench problem persists.

Reference: Provincial Directorate of Industry and Commerce, 2008;
Provincial Directorate of Environment and Forestry, 2008; OIZ Administration, 2009⁵²

⁵¹ Provincial Directorate of Industry and Commerce 2008 data utilized.

⁵² A Questionnaire has been conducted with the OIZ administrations in İzmir in February 2009 by the İzmir Development Agency. For the OIZs responding until the beginning of March, survey results have been taken as basis (Menemen, Aegean Fee Zones, İTOB, Kemalpaşa, Buca). For those not responding, data of the Ministry of Industry and Commerce and Ministry of Environment and Forestry have been utilized.

evaluation of present environmental situation, the industrial facilities in Gediz, Küçük Menderes, Bakırçay basins constitute the greatest environmental threat.

Industrial consumption of water constitutes approximately 15% of the total water consumption within the region. In developed countries this ratio is 46% (File on Water Issues (Su Dosyası), 2007). The water consumed through industry increases with industrialization and this situation makes its impact also in İzmir. For the purpose of reducing industrial water consumption, some certain techniques such as reuse and recovery are being utilized. The amount of water reused within industry in İzmir equals to approximately 10% of the total amount of water consumed as of 2004. This value is at an average of 33% throughout Turkey (TÜİK, 2008). Ratio of industrial reuse for water is significantly low in İzmir.

Regarding industrial energy consumption, it is seen that approximately 60% of the total energy consumed in İzmir is utilized for industrial purposes (Gediz Inc., 2007). Also, according to TÜİK 2007 data, while the electricity consumption per capita is 2,198 kWh in total, and 1,045 kWh in industry uses for Turkey average, these values in İzmir that are 4,139 kWh in total and 2,531 kWh in industry uses are above Turkey values. Utilization of techniques and technologies realizing reduction of industrial energy consumption and implementation of energy saving shall contribute to reducing energy consumption of industry in İzmir. Utilization ratios of environmental management systems that are included within clean production approaches and aims to minimizing the environmental impact of industrial development are significantly low within the region. According to year 2004 manufacturing industry environmental indicators, the ratio of enterprises having environment management certificates to the total number of enterprises is 7%.

As of year 2004, 6.8% of the overall industrial waste within Turkey is comprised of hazardous industrial waste. While this ratio is 5.8% for Aegean Region, it is 10.2% for İzmir province (TÜİK, 2008). 4% of overall

industrial solid waste is being recovered and reused. In this subject regarding high amounts of hazardous waste, lack of knowledge in companies within İzmir plays an important role (EBSO, 2007). Due to the lack of knowledge regarding ways of disposal and which wastes are hazardous waste, and storage problems in establishments which have the knowledge, this is a field requiring awareness raising works and investments. Total amount of hazardous waste generated in İzmir is 62 thousand tonnes/year as of 2004⁵³. This amount constitutes 88% of the hazardous waste generated throughout Aegean Region (TÜİK, 2008). Regarding hazardous waste disposal, the region has PETKİM as a disposal plant with a capacity of annual 17.5 thousand tonnes. However, this facility uses 7.5 thousand tonnes of this capacity for its own use.

On the other hand, 21 licensed waste recovery plants utilized for recovering hazardous waste cannot meet the required capacity. In conclusion of the contacts made with the Ministry of Environment and Forestry, it is learned that the incineration plant that is projected to be built in Manisa Kula district has a planned capacity of 20 thousand tonnes/year. According to the contact made with İBB Environment Protection and Control Department; it strikes attention that in our country divided into 9 regions regarding hazardous waste management, within Aegean Region İzmir especially is lacking towards meeting the demand for hazardous waste disposal. Due to transfer prices and storage problems, industrialists do not prefer sending their hazardous waste to distant plants such as İZAYDAŞ. Due to the waste amount is vast and appropriate hazardous waste disposal facilities are scarce, problems arise causing illegal dumping.

Flue dust wastes that stem from iron steel plants and constitute a major portion of the hazardous waste amount in the province are collected separate from slag wastes and sent to the recovery facilities situated in Kayseri for recovery purposes. Due to the absence of a facility to recover and process flue dust in İzmir, sometimes when the flue dusts cannot be accepted by the licensed facilities the waste gets accumulated in

⁵³ According to the information received from İzmir Provincial Directorate of Environment and Forestry; it has been determined that a total of 245,432 tonnes of hazardous waste is created with the province regarding the 2007 waste declaration forms. However, for the purposes of comparability the 2004 TÜİK Manufacturing Industry data have been utilized.

factory fields. Furthermore, due to the absence of a regular storage facility for hazardous wastes, hazardous wastes not recovered and not accepted by incineration plants, and the wastes of incineration plants prove to cause problems for the province.

The most problematic district regarding wastes is Aliğa district with the existing 5 iron steel factories, 2 petro-chemistry plants and 1 ship dismantling zone. The waste types causing the most problems regarding disposal are; treatment sludge that stems from leather industry and slag waste that stems from iron-steel industry which is defined as nonhazardous waste.

4.e. Sea and Coastal Areas

The Treatment Plant that has been put into service in year 2000 within the context of the Great Channel Project for the purpose of eliminating domestic and industrial pollutants and prevent the pollution in Körfez (İzmir Gulf) treats some of the industrial wastes and 70% of the domestic wastes flowing into Körfez, and provides the treated water to be given to Orta Körfez (Middle Gulf Area) around Çiğli district. The treatment system has a biological system with which nutrient elements such as nitrogen and phosphor can be treated.

While some changes can be observed within Körfez, it should not be disregarded that an improvement process has started for some of the parameters due to the position it resides within. It is possible to mention that a distinct decline has occurred regarding the fecal coliform concentrations of İç Körfez (Inner Gulf Area) following the construction of the treatment plant. Also, another important indicator of environmental improvement is the number of zoobenthic species increasing by 60% to reach 231.

However, some pollution inputs adversely affecting this improvement process still survive. Sources of pollution are especially the streams pouring into the gulf, the stream load carried by Gediz River, agricultural disinfectants stemming from agricultural activities done on water basins and brought to the gulf by the surface and drainage waters, artificial and natural fertilizer loads, and the loads caused by harbour and marina activities and marine traffic. Various sized surface waters such as Sazlıca stream, Kavaklı stream, Bostanlı-İlica streams,

Tahtalı stream, Bornova stream, Manda brook, Arap brook, Melez brook, Poligon brook, Balçova stream, Laka stream, Kocasu stream and Gediz River pour into the İzmir Gulf. These streams and Gediz River carry all the pollution formed within their basins to the gulf. Especially Gediz River, which carries the wastewaters from Kemalpaşa Industrial Zone and Manisa province, is an important pollutant branch (İzmir Healthy City Profile, 2008). The impact of Gediz River that gets affected by an especially large basin and the surrounding industrial areas and then flows into the gulf should not be disregarded.

In addition to the gulf, İzmir has a significant importance also regarding its sea and coastal areas. 101 km of the total 629 km long coast of İzmir has natural beach characteristics. The beaches at the southern part of İzmir are more advantageous in regard to summer length compared to northern beaches. Most of the 36 islands existing adjacent to İzmir coasts are small islands not fit for settlement. Having varying distances between 100 m and 2 km from the costs, the islands have coastal perimeters of an average 1-5 km length. Many of these islands are registered as natural protected site areas.

The number of blue flag awarded beaches in İzmir is 21 as of year 2008. Antalya and Muğla provinces, with which İzmir is in competition regarding sea tourism, take the first two places with 143 and 57 blue flagged beaches respectively, leaving İzmir at third place (TÜRÇEV, 2008). According to the organization authorized with awarding blue flag, namely TÜRÇEV, although the seas are generally clean in İzmir, one of the criteria is the obligation of treatment plant existence and that is the most common reason for not awarding blue flags to beaches of İzmir. Another reason is that blue flags are not awarded to some places, albeit scarce, which do not abide by other criteria (27 criteria such as no toilets, no cabins etc. besides the sea water quality) even if there is treatment plant existing. Investments to be made at sewerage infrastructures and WWTPs are of importance in areas of touristic value.

Another issue related to sea and coastal areas is the protected areas of national and international importance. Especially Karaburun and Foça are the most important coastal areas to be handled with integrated coastal management approach.

4.f. Basin Areas

In İzmir, Gediz, Küçük Menderes and Bakırçay rivers constitute the most important basin areas. Gediz basin springs from Murat and Şaphane mountains within Kütahya province borders and flows into İzmir Gulf between Foça and Çamaltı Salt Mine. Total area of Gediz basin is 17,500 km² and within the basin reside Manisa with its 12 district centres, İzmir with its 4 district centres (Foça, Kemalpaşa, Menemen, Çiğli), Kütahya with its 1 district centre and Uşak with its city centre. All studies conducted on the streams within the basin, which also houses the İzmir Bird Sanctuary (Kuş Cenneti) that has been declared Ramsar area of international importance, indicate that Gediz River has Class III and Class IV water quality all along the basing length especially due to organic pollution and heavy metals. For the purpose of improving the water quality of Gediz basin, Gediz Basin Action Plan has been prepared and sent to all relevant institutions and organizations.

Considering the domestic waste in Gediz basin, although all towns of Kemalpaşa has sewerage, WWTP is still in construction and tender stage. According to the DSİ Environmental Master Plan, Foça, Menemen and Kemalpaşa districts are prioritized in terms of WWTP construction. As was declared within the Water and Wastewater Management section of the report, activating the already constructed WWTPs at once, and making investment plans for the one not constructed yet are among prioritized subjects considering the socioeconomic importance of the basin (İZKA, 2008).

Among all OIZs situated within Gediz basin, only Manisa OIZ and Menemen Leather Free Zone has treatment plants. The pollution experienced within the basin stems from Kütahya, Uşak, Manisa and İzmir provinces, and significant pollutions are observed also on the branches joining Gediz River. Another one of the most important sources of pollution within the basin are; the problems within İzmir city, İzmir-Kemalpaşa OIZ, other OIZs and single constructed industrial facilities along with the settlements devoid of treatment plants, especially Menemen. As is known, pollution control in the basin is the responsibility of all four provinces. Gediz Basin constitutes one of the significant points of the relationship between İzmir and

neighbouring provinces.

Within Gediz Basin, industrialization is rapidly increasing in areas such as Manisa, Akhisar, Kemalpaşa, Kula, Menemen, Alaşehir and Salihli. Except some of the OIZs within the region, industrial plants have been settled in an independent layout (İZSU, 2009). Regarding merely the pollution source of İzmir within Gediz Basin, only 25% of the Kemalpaşa OIZ and single establishments in the area have WWTP.

The water returning from the irrigation of Menemen Plain, one of the largest irrigation areas within Gediz Basin, is collected via drainage canals. The collected drainage waters are discharged directly into the sea without joining Gediz River main branch. However, returned irrigation waters coming from some parts of Manisa and Turgutlu plains, waters brought via surface washing from these irrigation areas including Menemen Plain that can reach the stream, irrigation surplus and drainage leak waters all cause pollution in the river. Fertilizers and agricultural disinfectants used insensibly and unrestrained by the farmers reach the river by flowing on the surface and mix with the underground waters with irrigation and precipitation. Especially in Menderes, modern agricultural practices should be developed and the awareness levels of farmers should be raised (İzmir Provincial Directorate of Environment and Forestry, 2009).

Küçük Menderes basin covers the area between Gediz and Büyük Menderes rivers, and the river springs from Bozdağ and passing through Kiraz, Beydağ, Ödemiş, Tire, Bayındır, Torbalı, Selçuk districts it flows into Aegean Sea at İzmir province Selçuk district. Facing pollution threat with its Class IV water quality, the basin is among the important basins of Anatolia awaiting development with its irrigable plain capacity of 70 thousand hectares. Decreases in underground water levels are experienced in the basin and irrigations are aimed to be realized via developing the surface water sources. Beydağ Dam is among important dams.

The economic significance of Küçük Menderes basin renders its sustainability crucial and brings out the issue of preservation. Within the basin, Kiraz and Selçuk districts house WWTPs. The treatment plant in Selçuk is natural treatment. The treatment plant in Kiraz, on the

other hand, is not being operated. Although the other municipalities within the basin area (Beydağ, Tire, Bayındır, Torbalı, Ödemiş) have sewerage systems, domestic WWTPs do not exist. However, WWTP constructions have started in Torbalı and Bayındır districts. The project towards establishing WWTP in Ödemiş has been started by the Bank of Provinces (İller Bankası), using loan from the International Bank for Development and Reconstruction. Within Küçük Menderes basin, solid wastes are stored irregularly. The only solid waste disposal facility is to be built by Ödemiş Municipality, and is currently in project stage.

Industrial development within the basin occurs at Torbalı-Tire-Ödemiş axis. Most of the establishments in the basin are facilities based on the processing of agricultural products (İZSU, 2009). According to İzmir Provincial Directorate of Environment and Forestry 2007 data, approximately 550 establishments exist within Küçük Menderes basin and approximately 54% of these do not have WWTP. In some of the establishments, no process wastewater forms but instead only domestic wastewater occurs.

The waste that forms due to the excess use of chemical disinfectants and fertilizers within Küçük Menderes basin area pose threat for the basin. Also, the water level constantly decreases due to excess underground well drilling. Therefore awareness raising works should be conducted within the region.

“Küçük Menderes Basın Environment and Infrastructure Service Association” has been officially activated for the purpose of improving the water quality in Küçük Menderes basin. The basin is of significant importance due to agriculture being done at all districts within its area and Selçuk district possessing touristic value (İzmir Provincial Directorate of Environment and Forestry, 2009).

Bakırçay River springs from the slopes of Kocadağ within Soma district of Manisa province, and passing near Bergama and Kınık, flows into Aegean Sea at Çandarlı. The most important pollution source of the basin is the coal preparation plants in Soma and the Soma Thermal Power Plant. Defined as polluted with water at Class IV quality, solid waste at all municipalities within the basin are stored irregularly.

Construction works of only one solid waste disposal plant -belonging to Bergama Municipality- continues. In Kınık, sewerage system exists but WWTP does not exist. Domestic wastewaters of all villages except Terzihallier, Dağıstan, Göbeller, Karaveliler, Yukarıbey are discharged into Bakırçay river.

Agriculture is being done extensively at all districts situated within Bakırçay basin. Wrong irrigation techniques are implemented and excess agricultural disinfectants are applied. Besides agriculture, tourism is also of significant importance. Akropol, Asklepion, Bazalika and mosques in Bergama, Kozak Plateau, and Çandarlı Castle are among important tourism centres. Therefore, the basin is also important with its touristic assets (İzmir Provincial Directorate of Environment and Forestry, 2009).

The pollution herein is caused most extensively by processing and cooling waters of Soma Thermal Power Plant outside İzmir province borders, domestic wastewaters, industrial establishments such as olive oil and dairy products manufacturing, mining activities and agricultural activities (Gündoğdu; Turhan, 2004).

The most significant problem faced regarding the completion of basin's infrastructure and treatment plants and regular waste storage areas is financial inadequacies.

4.g. Biologic Diversity and Sensitive Ecosystems

Forested area total within İzmir province borders is 1,175,840 hectares. This area constitutes 42% of the total province acreage. Turkey average corresponding to this value is 27%. However, while 48% of Turkey's overall forest areas are defined productive, this ratio is 17% in İzmir. On the other hand, 52% portion of the forests throughout Turkey is degraded and in need of planning and improvement, while this ratio is 83% for the forests in İzmir (Provincial Directorate of Environment and Forestry, 2006a). Therefore, although forested area ratio is high, İzmir is significantly below Turkey average regarding productive forest area.

Considering the flora and vegetation in İzmir, it is seen that there are plant species in need of protection in Bozdağ, Nifdağı, Alaçatı Zeytineli coasts. Moreover, Gediz Delta, Küçük Menderes Delta and Gebekirse

Lake are also rich in plant species.

The most important issue to be emphasized considering the fauna of İzmir is that the coasts of İzmir constitute feeding and breeding grounds for the Mediterranean Monk Seal, among the world's rarest 12 mammals and the most endangered species throughout Europe. Foça that is under protection status and Karaburun Peninsula, unfortunately under no protection status, are both sheltering, feeding and breeding grounds for the Mediterranean Monk Seal. The seals use the Ayıbalığı cave in Karaburun for sleeping and birthing purposes. On the other hand, coasts between Aliğa-Menemen, west of Nemrut Harbour, and coasts north of Gediz Delta are also important feeding and breeding grounds for the Mediterranean Monk Seal. Turkey is one of the two countries providing shelter for the Mediterranean Monk Seal throughout the world. Totalling only 450-500 throughout the world, around 300-350 of these seals live on Turkey and Greece coasts. Besides Foça and Karaburun, another region of the same amount of importance for İzmir fauna is Gediz Delta that houses 217 out of 426 bird species existing in Turkey. In Küçük Menderes Delta and Gebekirse Lake, fresh water, salt water, land and marsh animals, mammals, birds and reptiles are in abundance.

There are wildlife preservation areas within İzmir. These are; Gebekirse Lake within the town of Zeytinköy in Selçuk district, Ovacık-Arpağ Forest in Bayındır, and Eşek Island situated between Çeşme and Karaburun Peninsula. In İzmir the only region possessing Specially Protected Area (SPA) status is Foça. Foça has been declared SPA in year 1990. Possessing natural beauty, historical assets and mythological importance, the region acquired this status due to being sheltering the Mediterranean Monk Seal. Other protected areas defined in international agreements are; Foça that has been defined as "Mediterranean Monk Seal Sheltering and Breeding Area" in Bern Convention, and Gediz Delta Bird Sanctuary that has acquired protection status in 1998 within the framework of Ramsar Convention.

Wetlands under protection within the province are; İzmir Bird Sanctuary, Sazlı Lake 1 in Karaburun, Sazlı Lake 2 in Menemen, Karagöl in Northern İzmir - Yamanlar, İkiz Lake in Bornova, Oğlananası Lake in Gaziemir, Belevi Geberik and Barutçu Lakes in Selçuk.

Water resource protection areas are Tahtalı, Alaçatı, Değirmendere and Balçova dams. For each dam, 4 different group of protection area is in effect.

Many natural, archaeological and urban site protected areas exist in İzmir. Natural protected areas are mostly concentrated at coastal areas. Most of the coastal areas in Karaburun and Çeşme are natural protected areas. In addition to that, the bays between Kuzey Foça, Foça and Yeni Foça are also natural protected areas. Also, Seferihisar-Doğanbey, Pamucak, Bornova and Çiçekliköy, Naldöken, Narlıdere and İnciraltı coastal areas, Çigli, Sasalı and Maltepe are registered as protected area.

Archaeological protected areas are; Pagos; Altınyol, Stadium and Smyrna in Bayraklı; Yeşilova, Agora in Altındağ; Erythrai in Çeşme; Klazomenai in Urla; Airai and Teos in Seferihisar; Lebedos, Kolophon, Claros in Gümlüdere; Ephesus in Selçuk; Metropolis in Torbalı; Nymphalon in Kemalpaşa; Phokea in Foça; Neonteikhos and Arissia in Menemen; Elaia and Pitane in Çandarlı (İBB, 2008a).

Urban protected areas are situated in; Buca, Bornova, Urla, Çeşme, Alaçatı, Seferihisar, Selçuk, Şirince, Menemen, Foça, Yeni Foça and Çandarlı. Additionally, Kemeraltı İzmir, Alsancak Kordon and Konak in Centrum area are also included in protected areas.

4.h. Assessment

İzmir is a province rich in natural resources. Possessing a significant importance considering its energy resources, biologic diversity, soil fertility, water basins and mineral resources, İzmir houses very diverse urban, agricultural and industrial activities within, and this situation increases the importance of environmental sustainability.

The most important environmental issue in the city is basin pollution caused by domestic wastes, agricultural and industrial activities. Gediz, Küçük Menderes, Büyük Menderes and Bakırçay Rivers that feed three out of overall 26 water basins of Turkey constitute the stream network of İzmir province. Having such important water resources, İzmir is also an agriculture and industry city regarding its socioeconomical structure. The untreated wastewater and solid waste problems in

Bayındır, Beydağ, Kiraz, Ödemiş, Selçuk, Tire and Torbalı districts cause the pollution of Küçük Menderes basin. And Bakırçay River gets polluted due to the partial wastewater problems in Bergama and Kınık.

Gediz basin receives its pollutants mostly from Manisa, while also suffering from heavy pollution due to the urban wastes in Foça, and urban wastes and agricultural and industrial processes in Kemalpaşa and Menemen. Especially the industry in Kemalpaşa and the insensible agricultural activities in Menemen are the biggest sources of pollution in this regard. The polluted Class IV quality waters of Küçük Menderes and Gediz basins cause important problems for the city due to the economic value they possess. In these fields, besides domestic wastewater treatment, there is need for technical and financial support regarding the implementation of environment management systems towards especially industrial and agricultural processes. Yet again especially in Gediz and Küçük Menderes basins, farmer education activities towards sensible and modern agricultural practices are essential.

There are still a total of 4 remaining irregular solid waste storage areas in Aliğa, Kemalpaşa, Mordoğan and Torbalı. Also, investments are required regarding storage and disposal of hazardous waste coming from industries. 88% of the hazardous waste generated throughout Aegean Region results from industrial processes in İzmir.

Due to the waste amount is vast and appropriate hazardous waste disposal facilities are scarce, problems arise causing illegal dumping.

Wastes flowing into the gulf via streamlets also constitute a serious threat. With the WTP activated in İzmir Gulf as of year 2000, significant improvements have been observed regarding the ecosystem. However, some pollution inputs adversely affecting this improvement process still persist. Various sized surface waters such as Sazlıca stream, Kavaklı stream, Bostanlı-Ilica streams, Tahtalı stream, Bornova stream, Manda brook, Arap brook, Melez brook, Poligon brook, Balçova stream, Laka stream, Kocasu stream and Gediz River pour into the İzmir Gulf. These streams and Gediz River carry all the pollution formed within their basins to the gulf. Especially Gediz River, which carries

the wastewaters from Kemalpaşa Industrial Zone and Manisa province, is an important pollutant branch.

In İzmir, air pollution is yet another significant environmental problem. Especially the industry-based air pollution in Aliğa creates an important problem in the city. Necessary actions have to be taken for meeting the year 2014 limit values that have been defined within the framework of the Regulation of Air Quality Assessment and Management dated 6th of June 2008.

Also, reduction of pollution caused by domestic heating can be made possible with the use of geothermal energy that is among the important energy resources existing in the province.

In İzmir, the amount of water per capita is 63% lower than Turkey average, and with this ratio that corresponds to 614 m³, İzmir is defined as a water poor province. In this regard, the currently continuing dam and water pipeline projects are essential for the province. Settlements in which investments are required regarding drinking water supply are distributed among the districts of Bayındır, Beydağ, Bergama, Çeşme, Foça, Menderes and Ödemiş. Furthermore, a major part of water consumption in İzmir is agriculture based. Necessary precautions towards decreasing the water consumption in this field should be taken.

İzmir houses important sensitive ecosystems. Foça is one of the 14 territories defined as SPA throughout Turkey and this area shelters the endangered species of Mediterranean Monk Seals. In addition, Gediz Delta has been declared as a Ramsar Area of international significance. Gediz Delta houses 217 out of 426 bird species existing in Turkey. Among these 217 bird species, there are 28 bird species such as spur-winged lapwing, Dalmatian pelican, lesser kestrel, stone curlew and ruddy shelduck that are globally endangered. Moreover, there are 700 plant species at the delta and 11 out of these are endemic species. On the other hand, there are some special species also at Kemalpaşa (Nif Mountain), Çeşme (Alaçatı, Zeytineli), Karaburun, Ödemiş (Bozdağ) and Selçuk.

Districts under greatest threat in regards to the diversity of environmental problems and the importance of the site are; Kemalpaşa, Ödemiş, Foça, Torbalı, Bayındır,

Beydağ and Aliğa. In Figure 72, the map summarizing the prioritised environmental demands of İzmir has been presented⁵⁴. In Table 19, distribution of environmental demands by districts can be seen.

İzmir is a province in progress towards transforming the

rich natural and cultural assets possessed to touristic values. The fact that its economy is based on industry and agriculture at the same time, increases the importance of preventing and control of the environmental pollution created in these fields.

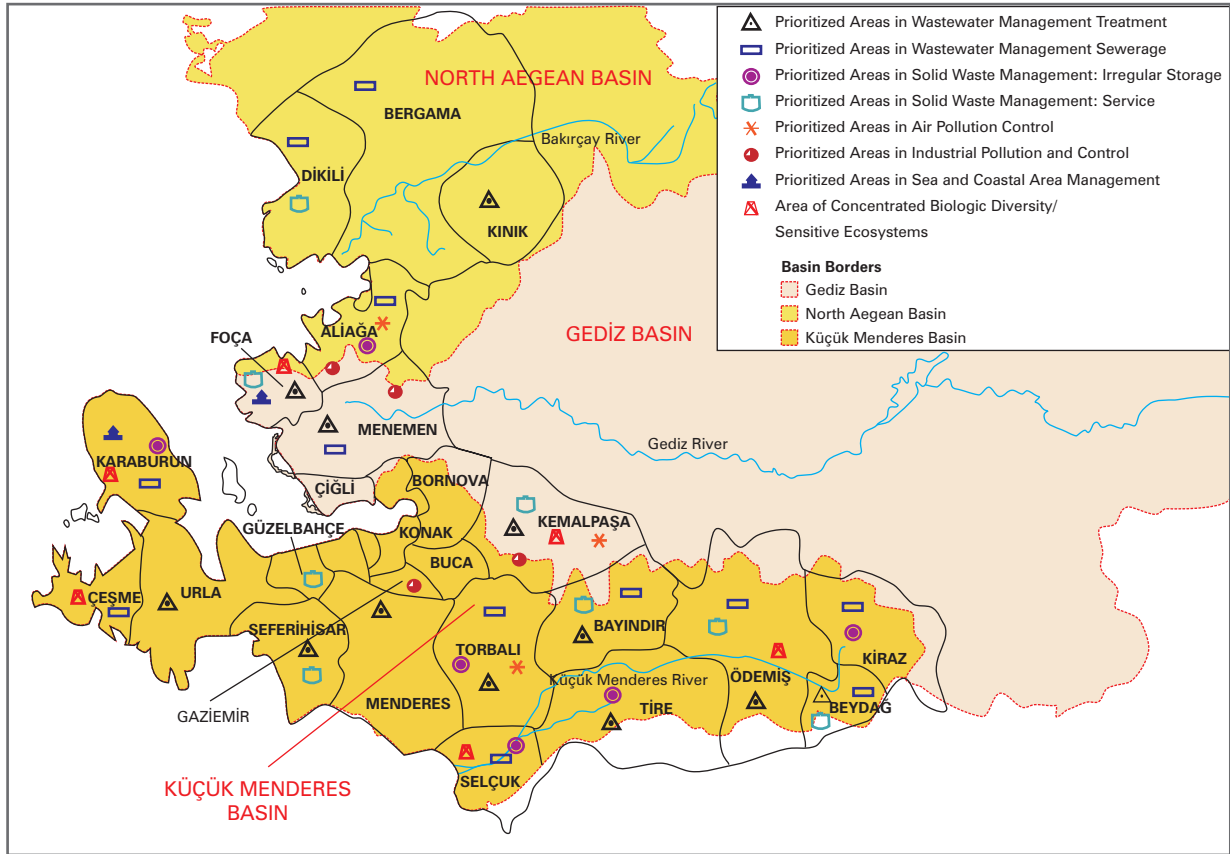


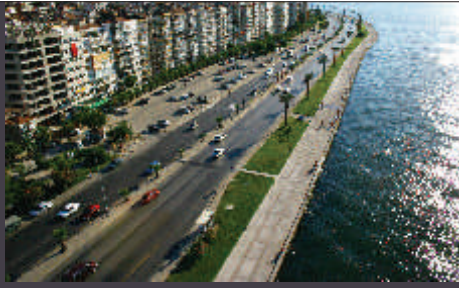
Figure 72: Prioritised Environmental Demands of İzmir

⁵⁴ In Urla, Menemen, Kemalpaşa, Torbalı, Bayındır, Seferihisar, Ayrancılar-Yazıbaşı, Yeni Foça, Buruncuk districts and towns, wastewater treatment plant works are being completed by İBB.

Table 19: Distribution of Environmental Demands by Districts

	Urla	Torbalı	Tire	Selçuk	Seferihisar	Ödemiş	Narlıdere	Menemen	Menderes	Konak	Kiraz	Kınık	Kemalpaşa	Karşıyaka	Karaburun	Güzelbahçe	Gaziemir	Foça	Dikili	Çiğli	Çeşme	Buca	Bornova	Beydağ	Bergama	Bayındır	Balçova	Aliağa
1																												
2																												
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5

TRANSPORTATION INFRASTRUCTURE





İZMİR SITUATIONAL ANALYSIS



5.a. National and International Connections of İzmir

Being the third greatest throughout Turkey and the sole greatest within Aegean Region, İzmir has a dense passenger and freight traffic. In addition to housing the biggest export port of Turkey, it also is a passage point connecting settlements such as Çanakkale, Edremit, Ayvalık, Bergama, Dikili and Aliğa at the north and tourism, industry and agriculture regions such as Aydın, Denizli and Muğla at the south.

5.a.1. Highways

In İzmir province, land transportation is done via 534 km state highways, 756 km province highways, 304 km expressways and 4.293 km county ways. Of 5.887 km total road network, 73% comprises of county ways, while 27% falls into the jurisdiction of General Directorate of Highways (KGM) 2nd Regional Directorate. 74% of the county ways are asphalt, 9% stabilized, 8% levelled and 9% are untreated roads. These roads are utilized by 532 villages and 445 neighbourhoods (İzmir Governorship, 2009).



Figure 73: KGM 2nd Regional Directorate Roads Network

Reference: KGM Web Site,

<http://www.kgm.gov.tr/harita.asp?resim=2>

Table 20: Comparison of the Expressway, State and Province Highway Lengths to Aegean Region and Turkey

Road Type/Region	İzmir	Aegean Region	Turkey
Expressway (km)	174	262	1.987
State Highway (km)	545	3.725	31.333
Province Highway (km)	769	3.572	30.579

Reference: TÜİK, 2008

İzmir is connected to surrounding road networks via expressway projects developed and under-development. On the northern axis lie two main north highway lines. First one provides connection to Balıkesir, Bursa and İstanbul through Manisa, while the second follows Aegean Sea coasts to connect with Çanakkale through Aliğa and Bergama. Eastern line passes through Uşak and Afyon, and lies towards Ankara. This road connects inner parts of Aegean Region and Central Anatolia to Aegean Sea. First highway along the southern line follows Aegean Sea coasts to reach Seferihisar and Kuşadası, while the second one goes parallel to İzmir-Aydın expressway and reaches Aydın. Also, there are expressways between İzmir-Çeşme and İzmir-Aydın. Other than expressways, the state highways that connect İzmir to surrounding provinces are generally divided ways.

With the improvement and expansion works to be conducted on İzmir-Aliğa-Ayvalık-Çanakkale axis, Menemen-Manisa-Turgutlu axis, İzmir-Manisa-Akhisar-İstanbul axis, İzmir-Turgutlu-Salihli-Uşak-Ankara axis, Bergama-Akhisar-Salihli-Alaşehir-Denizli-Acıpayam-Antalya axis, Torbalı-Bayındır-Ödemiş-Kiraz-Alaşehir axis, Kemalpaşa-Torbalı axis, Seferihisar-Kuşadası-Söke-Milas-Bodrum axes, İzmir and Aegean Region highway connections shall be strengthened. With the activation of İstanbul-Bursa-Balıkesir-İzmir Expressway, Aydın-Denizli Expressway and Çiğli-Aliğa Expressway projects, speed and effectiveness will be provided in transportation.

5.a.2. Railways

Overall line length of railways throughout Turkey is 10,991 km. According to 9th Development Plan data, it is aimed to increase the 1st Mainline railway length that is 8,257 km as of 2006 by 11% to 9,195 km in 2013, and 1,000 km of the existing rail lines to be renewed in

addition to this. Again according to plan data; it is expected that the domestic freight railway transportation load that is 11,505 million tonnes as of 2006 shall increase by 12% to reach 25,400 million tonnes in 2013 (DPT, 2006).

İzmir has a special place regarding our country's existing railroad transportation. The first railway in Turkey has opened in 1876 between İzmir-Aydın line. This line reaches into the interior of Küçük Menderes and Büyük Menderes valleys and allows for all of the agricultural products to İzmir Port. In railway transportation, mainline transportation is made from İzmir to Denizli, Ankara, Bandırma, Afyon, Ödemiş, Söke, Isparta directions, and also there are railway transportation means to the industrial regions within Menemen-Aliğa, Kemalpaşa-Manisa, Tire-Torbalı axes.

Within the body of 3rd Regional Directorate that is centred in İzmir-Alsancak, there is a line that constitutes 12.5% of the overall railway line length with its length of 1.378 km (TCDD, 2007). It is a serious advantage that İzmir has railroad connections with its hinterland, especially with Alsancak Port. However this advantage cannot be utilized due to the inadequacy of railroad investments.

The Ankara-Polatlı-Afyonkarahisar-Uşak-İzmir Railroad Project that is within investment program in terms of passenger transportation is designed to be a double line with 250 km speed capacity. In the current situation the distance between Ankara-İzmir by railroad is 824 km, and travel time is approximately 14 hours. With the project that is planned to be completed until year 2011, the distance between Ankara-İzmir is expected to be shortened by 200 km and the travel time to drop down to a total of 3.5 hours (İzmir Governorship, 2009).

5.a.3. Airways

İzmir is one of the most important transfer centres of Aegean Region and our country in airways transportation. There are four airports in İzmir, namely Adnan Menderes, Çiğli-Kaklıç, Selçuk and Çeşme. Of these four, Çiğli-Kaklıç Airport is used for military purposes. Selçuk Airport is a small airport built in 1990 to provide airway transportation to touristic destinations in and around Selçuk, and is also used for training flights of Turkish Aviation Association. Çeşme Airport, on the other hand is yet under construction.

With the activation of the new International Terminal and the conversion of the old International Terminal to Domestic Terminal, the total capacity of Adnan Menderes Airport that has been put into service in 1987 and is open to international air traffic to 9 million passengers/year. In the event the distribution of flights be done based on 24 hours, the annual capacity of the airport is capable of increasing up to 12 million passengers.

From İzmir, flights are done to 19 domestic destinations by 5 airlines companies and 103 international destinations by 60 airlines companies. Of these flights, 85% are done to European countries, and 15% are done to Middle East, Asian and African countries. Flights done to Europe are concentrated on Middle Europe countries. No direct flights are conducted from İzmir to North and South America and Australia continents (DHMI, 2009).

The daily airplane traffic of Adnan Menderes Airport that is 73 by year 2003 has reached 200 airplanes as of year 2007. 5.5 million passengers have been carried in 2006, while this value happened to be 5.2 million in 2007 and 5.4 million in 2008.

5.a.4. Maritime Lines

İzmir has access to important opportunities regarding maritime transportation due to its coastline. In the region, İzmir, Çeşme, Dikili, Foça and Aliağa Port Authorities function under the Undersecretariat of Maritime Affairs İzmir Regional Directorate.

While having high accessibility by sea, maritime transportation is not used sufficiently in İzmir for passenger transportation purposes (Ministry of Environment and Forestry, 2006). There are scheduled ferry cruises between Çeşme and Chios Island. Also passenger transportation exists between Çeşme and Bari and Brindisi ports in Italy.

In result of the efforts of İZTO towards having cruise ships to visit İzmir Alsancak Port, cruises have increased. In year 2003, a total of 3,271 passengers have visited İzmir with 5 cruises, while this number changed to 77,000 with 32 cruises in year 2004, 58,042 with 26 cruises in 2005, 183,198 with 94 cruises in 2006, 288,017 with 122 cruises in 2007 and 321,279 with 128 cruises in 2008. Regarding the nationality listing of passengers visiting within the first 6 months of year 2008, the first place is taken by Italians (38%), followed by French (10%) and German (9%) visitors. In 2009, it is expected for approximately 400,000 passengers to visit İzmir via 140 cruises. Due to the existing port not answering the demand adequately, project studies of İZTO towards carrying the cruise port to Üçkuyular territory are in progress (İZTO, 2009).

5.b. Urban Transportation

Although İzmir being situated around a gulf is actually an advantage towards transportation diversity, prioritizing highway-dominated investments until 1990s caused maritime lines along with urban railway systems such as tramway, subway and suburb to be neglected and thus lose effectiveness. However, thanks to the works conducted by İBB under the title of "Transportation Transformation Project" since 2000, maritime line and railway systems have been begun to be revitalized, shares of these systems within urban transportation have been increased.

İzmir Transportation Master Plan (İzmir Ulaşım Ana Planı UAP) that shall coordinate the transportation and traffic problems of İzmir and bring out the future projects of transportation infrastructure until year 2030 has been put into effect by being accepted with unanimous vote by the Transportation Coordination Centre and approved by the Metropolitan Municipality Mayor in 11th of March 2009 (İBB, 2009).

5.b.1. Land Routes

As a natural result of highway transportation being prioritized and the railway systems and maritime line transportation being neglected since 1950s, the highest share within İzmir urban transportation belongs to bus transportation. As years passed by, although the share of bus transportation within mass transit has decreased, its importance in urban transportation still increased. While the average number of daily passengers carried with 1,126 vehicles was over a million in 1996, in year 2006 approximately 800,000 passengers have been carried with 1,518 vehicles running between 295 urban lines (İBB, 2008).

In mass transit done via land routes, transportation systems other than bus transportation, such as minibus, service minibus, cab and collective cab systems exist. In year 2007, a daily average of 250,000 passengers have been carried with 1,117 vehicles between 47 lines via minibuses. Another transportation means used extensively in İzmir urban transportation especially for long distances is the transportation made by private or institution service minibuses. A daily average of 150,000 passengers are carried via these service minibuses (or buses) with "S" license plates. Number of trips done via collective cabs that are currently providing service between 4 lines also constitutes an important ratio of the transportation of daytime İzmir urban transportation.

As may be seen in Table 21, the number of motor vehicles in İzmir has increased by 63% compared to year 2000 and reached 910,712 in year 2008. This value corresponds to 37% of overall number of vehicles in Aegean Region and 7% throughout Turkey.

This increase in motor vehicles has deepened traffic and environmental problems along with the existing parking area problem. Parking problem has a significant place in the daily life of citizens especially in Konak and Alsancak that form the Centrum for the city, being the primary entertainment and commerce centre of the province. It is observed that the parking lot problem has spread throughout the city general, reaching a significant level in dense settlement areas with historical identities such as Mithat Paşa and İnönü avenues, Karşıyaka, Bornova (İBB, 2008).

5.b.2. Railway Systems

The length of the existing subway system, put into service in 26th of August 2000 between Üçyol and Bornova, is 11.5 km and has 10 stations within. The system provides service with a fleet of 45 trains each having a maximal capacity of 300 passengers. In addition to the Üçyol-Üçkuyular line that is under construction, Halkapınar-Bus Terminal, EÜ Hospital-Bornova Centre and Üçkuyular-DEÜ Hospital lines have also been included into planning stage.

Table 21: Comparison of the Number of Motor Land Vehicles in İzmir Versus Aegean Region and Turkey

Years	İzmir	Aegean Region	Turkey
2000	559.449	1.512.574	8.320.449
2001	574.165	1.555.401	8.512.956
2002	588.394	1.595.613	8.655.170
2003	605.740	1.643.577	8.903.843
2004	674.140	1.798.046	10.236.357
2005	731.995	1.961.861	11.145.826
2006	812.126	2.171.603	12.227.393
2007	866.072	2.316.246	13.022.945
2008	910.712	2.441.650	13.765.395

Reference: TÜİK, 2008; TÜİK Web Site,
<http://www.tuik.gov.tr/PreHaberBultenleri.do?id=4005>

Project EGERAY is conducted by İBB and TCDD collaboration. The project is a suburb operation system to provide service “at subway standard” on 79 km railway line and two tunnels with 5000 metres length, including a total of 32 station from Aliğa to Menemen, Çiğli, Karşıyaka, Alsancak, Şirinyer, Gaziemir, Adnan Menderes Airport and Menderes, 7 Transit Centre, and 2 depots. With the system to be installed, an annual 200 million passengers shall be transported at the beginning stage and 500 million passengers shall be transported with the complete activation of the system. With the project planned to be put into service in year 2009, considerable relaxation shall be provided to İzmir urban transportation (İzmir Governorship, 2009).

As can be seen in Figure 74, the subway line of which first stage has been completed and Aliğa-Menderes suburb line are primary aspects of the Integrated Transportation System and are inter-supportive systems. It is expected that approximately 610 thousand passengers per day can be carried when the entire subway line is completed (İBB, 2008).

In addition to these works, it has been planned to develop high capacity and clean modern tramway systems in order to reduce the load added by municipality buses that provide mass transit at dense-traffic main arterial roads within urban area, in context of UAP (İBB, 2009).

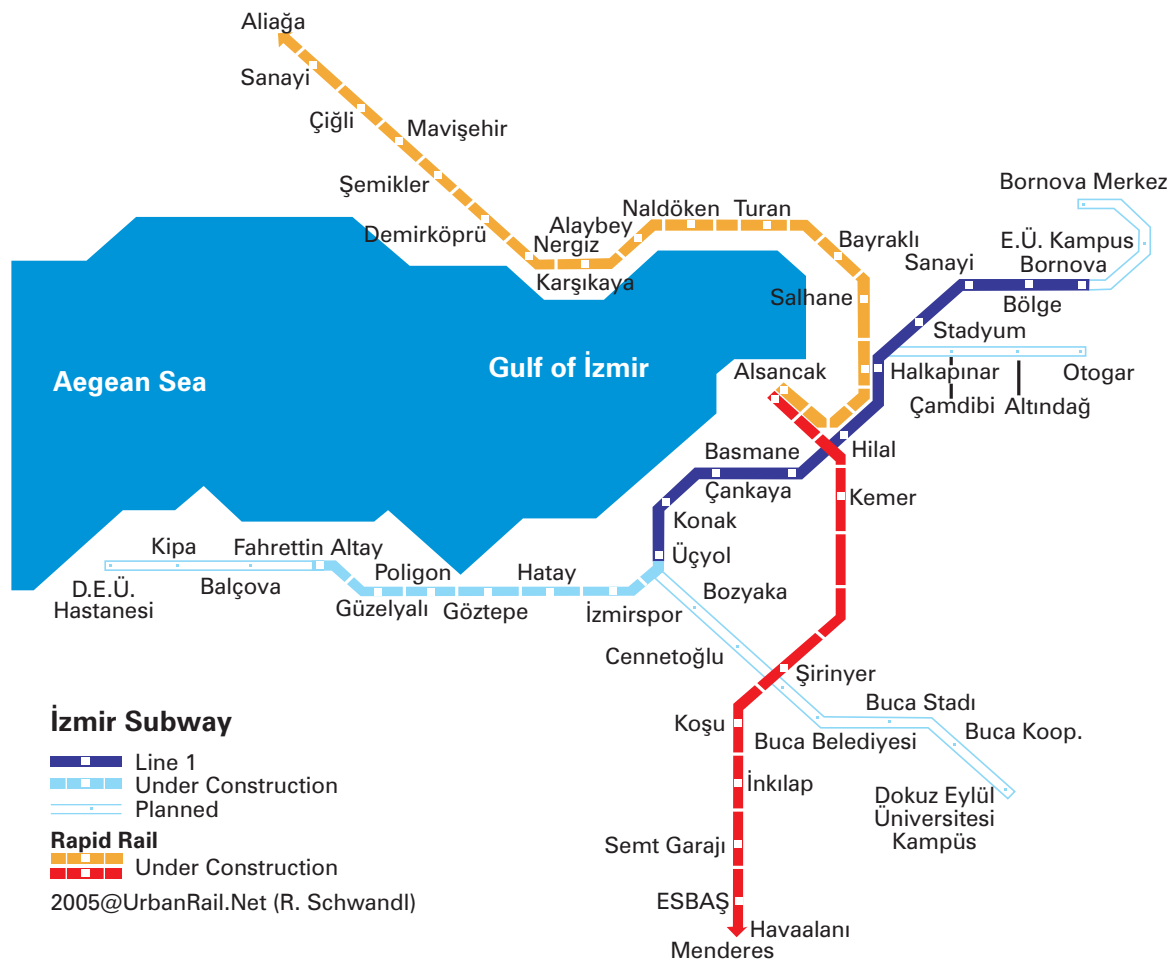


Figure 74: İzmir Subway and Suburban Lines, 2005
Reference: İBB, 2008

5.b.3. Maritime lines

The most important settlements and shopping centres of İzmir have been located around İzmir Gulf in compliance to the city's historical development. Despite this, urban transportation have been developed extensively dependant on land routes. It is observed that as of year 1989, 50% of the passengers travelling in urban transportation were carried by buses, 46% by automobiles, cabs and minibuses, while the ratio of railway and maritime transportation was only 4%. In this period, maritime transportation had degraded down to around 1% ratio within transportation (İBB, 2008).

In year 2001, with the ships belonging the Turkey Maritime Organization (TDİ) being transferred to İBB, the company named İZDENİZ has been founded; the passenger and vehicle transportation service provided by TDİ in İzmir Gulf line has been begun to be given by this company via 8 passenger ships and 3 car ferries. Within the framework of Transportation Transformation Project, connection lines have been put into service to carry passengers to Bostanlı, Üçkuyular and Karşıyaka ferry docks. The works have resulted in positive outcome, and when the existing 8 passenger ships were deemed inadequate, an additional 13 passenger ships have been rented to provide service with a total number of 24 ships. Today, there are 15 maritime cruise lines that connect various sections of İzmir Gulf. By UAP, it has been planned to add Adnan Saygun, Sadıkbey, Karantina, Mithatpaşa, Küçükyalı, Karataş, Güzelbahçe and Mavişehir passenger ports to the existing ports.

5.b.4. Pedestrian and Bicycle Transportation

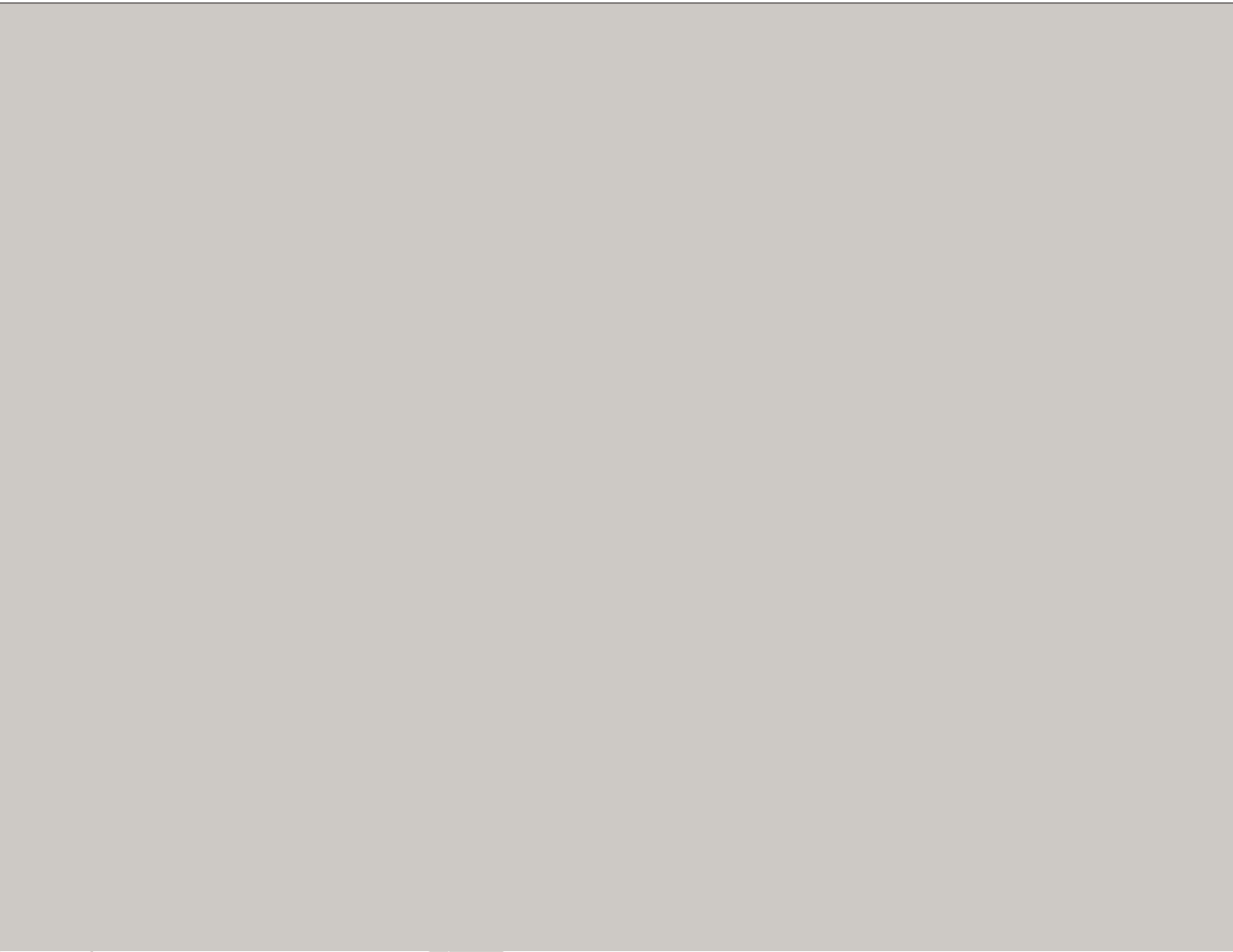
Prioritizing pedestrian and bicycle transportation and encourage the use of such types towards creating a sustainable urban transportation system within EU harmonisation process are among the aims defined within the 9th Development Plan.

Some of the areas belonging to pedestrians and bicycles that were left for automobiles during long years in the past have been begun to be given back to pedestrians in the last 20 years. In addition to Karşıyaka Bazaar and Kıbrıs Şehitleri Avenue, the arrangements made in

Mustafa Kemal Coastline Boulevard, Karşıyaka coastal arrangements, and the arrangement made along the coasts of Bostanlı and Altinyol provided the creation of new areas for pedestrian and bicycle transportation purposes. Total length of pedestrian roads at city centre along the coast is 37.43 km. And it is observed that the total length of bicycle roads situated along the recreation areas which are concentrated yet again at coastal sections is 25.80 km. Although these values are higher compared to the past, they still have not reached an adequate level (İBB, 2008).

5.c. Assessment

İzmir is a passage point in terms of transportation networks that connects agriculture, industry and tourism territories together. Improvements to be made at the highways connecting İzmir to neighbouring cities, Ankara and İstanbul, increasing the railroad investments and the number of cities with direct flights to İzmir are all going to strengthen this central position of the province. Although the prioritization of highway-dominant investments for urban transportation until 1990s caused the other transportation types to lose all effectiveness, maritime lines and railway systems have been revitalized in result of the works İBB carried out beginning in year 2000. In this context, with the completion of subway lines under construction and planned, and the Project EGERAY between Aliğa and Menderes, and with the addition of new ports for maritime transportation, a significant relaxation shall be realized in urban transportation. Enterprises towards universalizing the areas for pedestrian and bicycle transportation and resolution of the parking lot problem concentrating in city centre shall increase the life quality in the city.





İZMİR PROVINCE PRIMARY INDICATORS

İZMİR PROVINCE PRIMARY INDICATORS 2008

REFERENCE	YEAR	UNIT	İZMİR	AEGEAN REGION	TURKEY
GENERAL INDICATORS					
TÜİK	2007	km ²	12.012	89.997	783.562
İİB*	2008	item	30	124	892
TÜİK	2007	item	88	601	3.225
TÜİK	2007	item	596	3.781	34.171
POPULATION, IMMIGRATION and DEMOGRAPHY INDICATORS					
TÜİK	2008	person	3.795.978	9.384.848	71.517.100
TÜİK	2008	person	1.898.186	4.692.930	35.615.946
TÜİK	2008	person	1.897.792	4.691.918	35.901.154
TÜİK	2008	%	20,50	21,61	26,27
TÜİK	2008	%	71,44	69,68	66,88
TÜİK	2008	%	8,05	8,70	6,84
TÜİK	2008	age	32,4	32,2	28,5
TÜİK	2008	person/km ²	316	105	93
TÜİK	2007-2008	%	15,03		13,10
TÜİK	2008	person	3.450.537	6.720.948	53.611.723
TÜİK	2008	%	90,90	71,61	74,96
TÜİK	2007	person	3,25	3,32	3,86
WORKFORCE INDICATORS					
TÜİK	2008	person	1.171.000	2.941.000	21.194.000
TÜİK	2008	%	7,5	21,8	23,7
TÜİK	2008	%	31,5	26,7	26,8
TÜİK	2008	%	61	51,5	49,5
TÜİK	2008	%	11,8		11
TÜİK	2008	%	12,4		13,6

REFERENCE	YEAR	UNIT	İZMİR	AEGEAN REGION	TURKEY
EDUCATION INDICATORS					
TÜİK	2008	%			
Prov. MEM**	2008-2009	%	94,9		91,8
TÜİK	2008-2009	person	33,24		32,11
TÜİK	2007-2008	person	33,331	95,802	804,765
TÜİK	2008-2009	person	19	23	27
TÜİK	2008-2009	%	99,22	98,1	96,49
TÜİK	2008-2009	person	461,262	1,174,623	10,709,920
TÜİK	2008-2009	person	33		32
TÜİK	2008-2009	person	20		23
TÜİK	2008-2009	%	68,16	65,30	58,52
TÜİK	2008-2009	person	202,982	474,338	3,837,164
TÜİK	2008-2009	person	31		31
TÜİK	2008-2009	person	15		17
TÜİK	2007-2008	person	85,104	231,105	2,345,887
TÜİK	2007-2008	person	6,165	11,356	96,105
HEALTH INDICATORS					
TÜİK	2007	item	47	162	1,276
TÜİK	2007	item	11,311	25,340	184,983
TÜİK	2007	item	302	272	262
TÜİK	2007	person	9,211	15,911	111,019
TÜİK	2007	person	406	584	636
TÜİK	2007	person	22,747	46,516	321,681
TÜİK	2007	person	164	200	219
AGRICULTURE INDICATORS					
TÜİK	2007	decare	455	3,729	39,505
TÜİK	2007	decare	205	2,193	21,979
TÜİK	2007	TL	591	991	805
TÜİK	2007	TL	304	450	349
TÜİK	2007	TL	379	489	325

REFERENCE	YEAR	UNIT	İZMİR	AEGEAN REGION	TURKEY
FINANCIAL INDICATORS					
TBB	2008	item	659	1.317	8.737
TBB	2008	thousand TL	26.087.456	45.224.926	453.117.669
TBB	2008	thousand TL	18.383.984	34.815.961	363.860.979
TÜJK	2008	million \$	26.123	26.961	201.961
TÜJK	2008	million \$	21.580	23.345	132.003
TÜJK	2008	%	83		65
DPT	2003	\$	9.185	7.270	6.132
TÜJK	2001	%	7,5	15,5	100
TÜJK	2007	item	3.624	6.763	55.350
TÜJK	2007	item	734	1.109	9.954
INDUSTRIAL INDICATORS					
STB***	2007	item	17	46	219
STB***	2008	item	23	35	484
STB***	2005	item	8.583		94.502
DTM	2006	item	2	3	20
DTM	2006	billion \$	4		23
DTM	2006	item	655		3.909
TÜJK	2001	item	1.040	1.966	11.311
TÜJK	2001	person	90.643	182.116	1.096.670
CULTURE and TOURISM INDICATORS					
TÜJK	2007	item	138	651	2.514
TÜJK	2006	item	442	2.081	7.033
TÜJK	2007	person	966.693	4.048.496	23.340.911
TÜJK	2007	item	86	172	1.140
TÜJK	2007	person	2.219.436	3.113.394	20.659.569
TÜJK	2008	item	26	36	204
TÜJK	2008	person	248.459	383.160	3.380.214
TÜJK	2007	item	44	181	1.162
TÜJK	2007	person	362.191	2.580.387	20.228.517
KTB****	2009	item	16	44	188
TÜJK	2007	person	607.667	1.056.151	12.187.976

REFERENCE	YEAR	UNIT	İZMİR	AEGEAN REGION	TURKEY
TRANSPORTATION INDICATORS					
TÜİK	2007	km	1.314	7.297	61.912
TÜİK	2007	km	174	262	1.987
TÜİK	2007	km	325	1.632	8.697
TÜİK	2008	item	1.258		950
TÜİK	2006	item	6.301	16.515	96.128
TÜİK	2006	item	141	689	4.633
TÜİK	2006	item	9.253	27.009	169.080
ENVIRONMENT and ENERGY INDICATORS					
TÜİK	2006	%	93	82	81
TÜİK	2006	%	97	98	98
TÜİK	2006	%	29	16	49
TÜİK	2006	%	76	51	51
TÜİK	2006	%	96	89	87
TÜİK	2006	litres/person-day	227	258	245
TÜİK	2007	kWh	4.139	2.879	2.198
TÜİK	2007	kWh	2.531	1.529	1.045
TÜİK	2007	kWh	792	611	517

* İİB: Ministry of Internal Affairs

** Prov. MEM: Provincial Directorate of National Education

*** STB: Ministry of Industry and Commerce

****KTB: Ministry of Culture and Tourism



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