

AN EVALUATION OF INDUSTRIAL PARK POLICY OF TURKEY: IZMIR AS A CASE STUDY

1. Introduction

Industrial parks are accepted a crucial industrialization and city and region planning tool. As a city and region planning tool, industrial parks are: controlling industrial development, obtaining systematic urbanization, balancing regional development and pioneering new cities establishment and improvement. As an industrialization tool, industrial parks are provided great economic advantages and encouragements for entrepreneurs. Firms existing in industrial parks benefit from external and agglomeration economies so their competition power increase. In addition to being an effective means of practicing macro policies, the policy of industrial parks, is accepted as a considerable way of industrialization by improving industry, modernizing industry establishments according to increasing productivity and profit, decreasing costs and improving quality of products.

In Turkey, the industrial park policy has been constituted in the Five Year Development Plans by State Planning Organization (SPO) since 1970. These objectives have been; achieving balanced regional development, using industrial parks as an urban development planning tool, directing industrial development, decentralizing industry and reducing unemployment by providing incentives and disincentives for manufacturing firms. Nevertheless, they have not been achieved yet. But on the contrary, manufacturing firms have selected location in the provinces of most developed regions of Turkey, Marmara and Aegean Regions. This practice was contrast to the industrial park policy of SPT. Thus the Ministry of Industry and Trade became a law of industrial park in 2000. Aim of the law is to regulate location selection, establishment and management of industrial parks as an urbanization and industrialization planning tool. Just now the developed cities have too many established and establishing parks that cause unexpected and uncontrolled urban growth, social problems, less economic growth and idle capacity. Thus, structure and historical development of manufacturing industry of each city should be analyzed and an industrial park planning should be made based on the law and the objectives of SPO.

This study focuses on the examination and evaluation of the industrial parks policy of Turkey and the development of fundamental aspects of industrial park planning. The first chapter is introduction. The second chapter is concept and practices of industrial parks in the World and Turkey. The third chapter is evaluation of industrial park policy of Turkey as an urbanization and industrialization tool. The fourth chapter is the case study. With its 20 industrial parks; that are active, on the process of construction and on site analysis stage, İzmir has the highest number of industrial parks in Turkey. The last chapter is conclusion.

2. Concept and practices of industrial parks in the world and Turkey

Definition of Industrial Parks

Various definitions of industrial park have been made, but the definition which was made by United Nations Industrial Development Organization (UNIDO) is considered to be the broadest definition. According to UNIDO's definition "*An industrial park can be defined as a tract of land developed and subdivided into plots according to a comprehensive plan with or without built-up (advance) factories, sometimes with common facilities and sometimes without them, for the use of a group of industrialist*". (UNIDO, 1997, p.10)

Two points in the definition above need amplification. The comprehensive plan refers not only to the physical planning of the park, but also to its immediate economic and social environment, and the role assigned to it in the regional or urban development plan.

The general and approved definition of industrial parks in Turkey in The Industrial Parks Law is as followed: "*In order to build industry where it is suitable, guide urbanization, prevent*

environment problems, make use of information and data processing, in order for manufacture industry types to be put into place and improved, industrial parks are places where plots of land of which boards were allotment, infrastructure services, social buildings, techno parks are present according to needs, and industrial parks are places that were provided for industry in order to manufacture” (Industrial Park Law: 4562, 2000, p.1)

UNIDO have described some of the characteristic features of industrial parks as follows: First, a defined geographical area which contains businesses of an industrial nature. The essential element is that the park is administered or managed by a single authority that has defined jurisdiction with respect to tenant companies. Second, industrial parks cover up a relatively large surface area of 40-80 ha. Third, there are some restrictions on companies existing in the park: With respect to the type of construction, concerning the size of individual sites, there is a master plan that guides; overall use of the built environment, e.g. energy or water efficiency. Finally, Industrial parks are developed according to a ‘master plan’ that guides; the physical planning of the park and the economic and social environment, depending on the role within the regional or urban development plan. (UMEP, 1996)

Practices of Industrial Parks in the World

Industrial parks began to appear just over 110 years ago in the United Kingdom and the United States. Development of industrial parks had been slow until the Second World War. However, industrial parks have been used with increasing success since the Second World War in Europe and other developed countries. But some of Europe countries like Germany, Austria, The Netherlands and Scandinavia frequently, cities have promoted industrial zones which in concept have approached what are called industrial tract in the United States. That are areas have been set aside for industrial use and municipalities have been taken the initiative to provide them with the utilities required for manufacturing. In Italy and the United Kingdom, industrial parks have been used for promoting and guiding industrialization in undeveloped regions. (Bredo, 1960, p9)

Industrial Parks in developing countries, which adopt planned development as means of development in developing countries have taken encouragement precautions in order to have balanced development among regions, active resources in developing regions, stop unemployment so that reduce the social cost that emerged by industry and relocate industry in undeveloped regions.

According to studies made by the United Nations; an often-quoted estimate from 1996 puts the number of parks globally at more than 12000. Growth in the developing countries of Asia has been rapid and recent estimates indicate that there may now be more than 20000 industrial parks globally by 2000 in China and over 5000 parks in other parts of the region. The numbers of industrial parks have been increasing worldwide with a particular interest in the industrializing countries. (Francis, Erkman, 2002)

Industrial parks may be classified according to improvements and facilities, industrial activity, objective and sponsorship (ownership) and management. (Unido, 1968)

Table 1. Classification of Industrial Parks

Features of Industrial park			
Services and Facilities	Industrial Activity	Objective	Financing and Management
Industrial Tract	Composite (Mixed)	Developmental	Private
Industrial Subdivision	Ancillary	Promotional	Private Assisted
Fully Packaged	Functional (Single-Trade)	Dispersal	Governmental

Source: Unido, 1968

Economic Benefits of Industrial Parks

Industrial parks offer many economic advantages to industrialists, local communities and countries. The economic benefits of industrial parks arise to an important degree from the following:

- 1-Economies of scale derived from the development of the park
- 2-External economies accrued largely from the aggregation of enterprises
- 3-Provision of certain services which become feasible as a result of an aggregation of a sufficient large number of firms. (Bredo, 1960)

The Position and Importance of Industrial Parks in City and Region Planning

In general the fact of urbanization is a result of industrialization. The speed and formation of urbanization usually depends on speed of industrialization in every country. Industrial parks contribute to industrial and economic development and in addition they can be used as an important tool for the urban and regional planning policies of the country. According to United Nations industrial parks serve (UNIDO, 1997);

- To promote decentralization by preventing or checking excessive concentration in or growth of single urban areas especially large metropolitan areas,
- To increase the economic, productive and employment base of urban communities,
- To regulate the inflow of industry and guide its orderly location on the most suitable land within the metropolitan area,
- To strengthen the economic base of small and medium-size towns,
- To provide a healthier and more attractive urban environment by separating non-industrial and industrial areas,
- To minimize distance to work and reduce load on the transport system,
- To maximize efficient land usage and reduce the cost of land and land development,
- To integrate urban marginal population into the productive industrial system,
- To provide sites to relocate industries displaced by urban renewal projects,
- To achieve economies in the provision of urban services and utilities.

The potential contribution of an industrial parks program, adequately supported and coordinated with other development programs, related to regional development strategies two contributions come first. First, industrial parks stimulate the relocation of industries to peri-urban or rural areas, helping to relieve congestion and pollution in metropolitan areas, strengthen the industrial base of small and medium-size towns and arrest rural-urban migration. Second, in order to avoid interregional economic unbalanced, industrial parks aim is to speed and direct industry activities. The aim of practicing this policy for governments is to reduce social costs by obtaining balanced regional development. (Unido, 1997)

3. Evaluation of industrial park policy of turkey as an urbanization and industrialization tool

The Development of Practicing Industrial Parks in Turkey

Before the industrial parks were established, Turkish industrialists were faced problems such as finding an appropriate place, setting up infrastructure foundation, and having required capital to run the firms. The industries that were developing unsystematically and without plan in the centre of cities and rural areas were damaging environment. Aim of solve this problem, foundation of industrial parks were been decided in the five year development plan. The concept of industrial park has always been in development plans and programs in order to improve planned industry in Turkey. In the planned development periods, industrial parks had three considerable objectives; 1- To fulfill balanced growth by attracting industry to these regions and encourage undeveloped regions to grow but not to cause imbalance among the regions. 2- To fulfill planned urban growth by gathering unsystematic industry firms with a planned settlement system. 3- To speeding industrialization and increasing employment. (SPO, The Five-Year Development Plans)

In this period, industrial parks came across a great number of problems since they did not have their own law. The industrial park law (Law no: 4562) was approved by the parliament in 2001. The aim of the law is to arrange establishment process, location selection, management, finance, and construction of industrial parks. Until 2002 when the law came into force, 41 in substructure of industrial parks were completed and started operating. During these years' industrial parks that were being run and are on research- project stage, were established infrastructure were built and were run according to regulations by the Ministry of Industry and Commerce. At the moment, the Judicial Bases of Industrial Parks in Turkey is five-year development plans and the law of 4562.

In this chapter, practices of industrial park with policies in development plans are debated and how much of these policies have been fulfilled will be discussed. In addition, why industrial park policy of turkey as an urbanization and industrialization tool has been unsuccessful will be investigated and the effective factors will be explored.

Establishment of Industrial Parks

According to 4562 Industrial law, 'Location Selection Regulations of Industrial Parks' and 'Practice Regulations of Industrial Parks' the process of establishment of industrial park must be by turns;

- Preparing 'Industrial Park Justification Report' by associations and foundations that want to establish industrial parks,
- First application to establishment of industrial park to The Ministry of Industry and Commerce by the governorship of province,
- Location selection of industrial park between the alternatives,
- Proposal of Project to the State Plan Organization to be taken into the investment program,
- Obtaining legal status of industrial park and expropriation of the land by enterprising organization,
- Preparation and approval of implementation plan: preparing 1/5000 or 1/2000 master plan and 1/1000 implementation plan of chosen area come into force after approval of the ministry of industry and trade with the decision of administrative province committee,
- Preparation and construction of infrastructure projects,
- Allotment of land to industrialists.

Location Selection of Industrial Park

Location selection of industrial parks is done according to the industrial parks law and 'Regulation of Location Selection of Industrial Park' prepared in 2001. The process of location selection can be examined in two phases as 'study phase' and 'location selection phase'.

In the study phase, throughout province/district to be able to establish industrial park alternative areas are determined in a report. This report consists of the parts below.

- I- General evaluation of province/ district
- II- Threshold analysis of 1/100000 or 1/25000 scale to be able determine alternative lands where industrial parks can be established
- III- Evaluation of alternative areas
- IV- Conclusion

In the location selection phase: "a location selection committee" is formed from 24 official establishments in order to examine areas that have been determined in the study phase report. The committee determines one of the areas as a place of industrial park. (Regulation of location selection of industrial park)

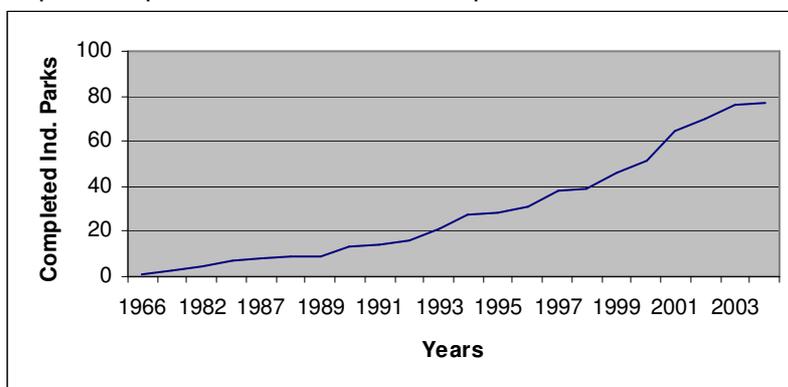
Financing of industrial parks in Turkey is provided from “industrial parks and small industry sites fund” a source originated from the general budget. The ministry of commerce and industry, according to development level of province where industrial park is present, provides loan of 90% to 99% of the project from this fund. The rest of the project is covered from participation share of enterprising organization.

State of Practicing Industrial Park of Today

Bursa Industrial Park, started to be improved in the end of 1962, was the first industrial park in Turkey. After completing the constructions in 3-4 years it got full with 70 %. Therefore practicing of industrial parks started to be spreading. (Onat, 1969)

At the moment, practicing industrial park reached 18287 hectare and 77 units until 2004. According to investment program of the Ministry of Industry and Commerce, 116 industrial parks of which construction of infrastructure are going on, are on the investment program of 2005.

Graph 1. Improvement Trend of Completed Industrial Parks



Source: The ministry of Industry and Commerce

Regional and Provincial Distribution of Industrial Parks

When the regional distribution of completed parks is evaluated; it is seen that most of the parks completed are existing in the western part of the country. The politics of ‘for each county at least an industrial park’ is being tried to be fulfilled. In addition to this, a decision has been taken to establish industrial parks especially in Marmara, Aegean and Interior Anatolia Region.

Table 2. Regional Distribution of Industrial Parks

Name Of Regions	Completed by the end of 2004		The Investment program of 2005	
	Number of Ind Park	Size (Ha)	Number of Ind Park	Size (Ha)
Marmara	13	4082	14	3003
Aegean	11	3 012	21	3769
Mediterranean	10	2453	7	1203
Interior Anatolia	16	4018	16	4381
Black Sea	13	1348	30	4307
Eastern Anatolia	7	1248	16	2408
Southeast Anatolia	7	2 126	12	4163
Total In Turkey	77	18287	116	23234

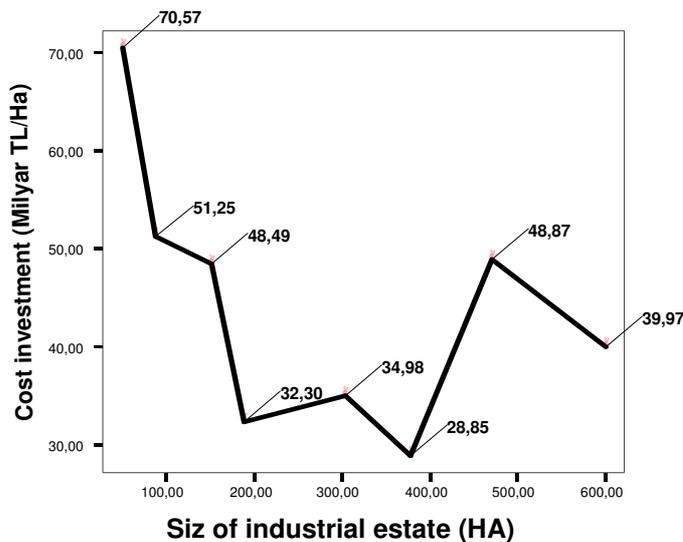
Source: The Ministry of Industry and Commerce

Size of Industrial Parks

Size of the completed industrial park changes between 50-800 ha. The size of most of completed industrial parks is 51-300 hectares. The size of industrial parks that are in the stage of construction changes between 20 and 1850 hectares.

The most important reason for industrialists to establish their establishments in industrial parks is to benefit from scale economies. In Turkey, determination of size of industrial parks is done spontaneously. Examining the size of completed industrial parks, built by loan of the Ministry of Industry and Commerce, comparing to costs of infrastructure; the size of industrial parks having the highest cost are industrial parks that are 0-50 hectares. The size of industrial park that has the least investment costs is between 180- 400 ha.

Graph 2. Optimal Size of Industrial Parks



Source: The Ministry of Industry and Commerce

The Demand for Industrial Parks

Before establishing an industrial park, there are no studies regarding determination of size and kind of industrial parks and as well as beforehand demand on establishment and location selection of industrial parks. The main factors of these, for every province having an industrial park, even in the west for every county having an industrial park, some local and central groups put pressure in order to obtain industrialization even in form. Therefore, it is believed that it is easier for industry to go to a region whose place and infrastructure is definite then to make establishing out of nothing

One of the signs of success of an industrial park is filling rate. The number of plots of land in total in completed industrial parks is 21901. The number of factory is 10545. The proportion filling rate is 48 %. Only three industrial parks reached to 100% filling rate. These industrial parks are Konya I, Manisa I and Eskişehir I. Particularly industrial parks that reached to certain filling rate, because of agglomeration economics demand increases fast. For instance, in Eskişehir, Gaziantep, Konya, and Manisa industrial parks, soon after stage I and II got full, work was started in order to establish III and even IV enlarging regions. However, Sinop I and Erzincan industrial parks have been completed for a few years, demand is still little.

Table 4. According To Geographical Regions Allotment and Filling Rate of Industrial Parks

Name of Region	Completed by the end of 2002				
	Number of Ind. Parks	Size (Ha)	Number of Plot in Ind. Parks	Number of Factory	Factories on Cons. and Project Stage
Maramara	10	3582	1821	1186	781
Aegean	11	3012	1886	1099	411
Mediterranean	9	2278	988	369	310
Interior Anatolia(*)	14	3288	14636	6816	366
Black Sea	9	905	631	306	119
Eastern Anatolia	5	948	602	210	65
Southeast Anatolia	7	2126	1337	561	391
Total in Turkey	65	16139	21901	10545	2444

(*) İvedik industrial park consists of 7800 small plots.

Source: The Ministry of Industry and Commerce

Completion Times

Completion times of 77 completed industrial parks vary from 1 to 19 years in Turkey. Most of industrial parks are completed in 10-14 years although only 8 industrial parks have been completed in 1-4 years. Completion time last long particularly for industrial parks in which the ministry loan is used.

Cost of Investment

Four of five completed industrial parks that have the highest investment costs are in Black Sea Region. For Black Sea Region geographically being on an inclined land is one of the most important factors that increase the investment costs.

Comparing Practices of Industrial Parks in Turkey to Practices of Industrial Parks in the West

Looking at the objectives in practicing in Turkey, industrial parks were seen as a means of encouragement and employment in order to speed up industrialization. For this reason industrial parks were become widespread throughout the country and established nearby cities. However in the developed west countries new cities were planned with industrial parks in order to make industry widespread in rural areas, prevent big cities from getting bigger and decentralize industry by putting forward features of industrial parks which are place organizer and creating external economies. So, industrial parks have been quite successful on removing interregional imbalance in Italy and England.

The other considerable comparison is about types and scales of industry. In the west countries specialized industrial parks were established in order to create external, scale and agglomeration economies. However, in Turkey 'mixed industrial parks' are more common. Only two of completed industrial parks are specialized leather industrial parks. Although in development plans it has been proposed to establish specialized industrial parks in developed regions, in practice it did not come true.

Another difference is establishment size that should be present in industrial parks. In the west countries, industrial parks are presented in order to be in the service of small and medium scale establishments that have 1-200 employees. However, in Turkey small industry sites have been established for small scale establishments, it has been aimed to establish medium and large scale establishments in industrial parks. But this did not occur in practice

so from carpet washing factory that have 5 employees to automotive factory that have 4500 employees all sorts of scales industry establishments were established in industrial parks.

The difference between practices of industrial parks in Turkey and the developed west countries can be summarized as it is in the table below:

Table 5. Comparison of Practices of Industrial Parks in Turkey and the Developed Western Countries

	West countries	Turkey
Type	Specialized	Not specialized
Location	Half urban areas	Urban areas
Administration form	Generally by private establishments that do not have profit aim	by private establishments that do not have profit aim
Appropriation form	Plots for hire and sale	Plots for sale
Provided services	Standard factory buildings or Standard plots, infrastructure and common service foundations	Not Standard plots, infrastructure and common service foundations
Finance	Loans possibilities	Loans possibilities
Scale of firm	Small and medium scale establishments	Small, medium and large scale establishments

Source: Asuman Çezik-Ayda Eraydın "Industrial parks in Turkey (1961-1981)"

Contribution of Industrial Parks through Industrialization and Urbanization Process in Turkey

Considering improvement of industry in the last fifty years in Turkey, the number of establishments that are present in industrial parks that have been operating, the capacity of employment, present employment and capacity of manufacturing industry are so low. Since the possibilities of finding location for industry using the infrastructure done by the state, entrepreneurs were not restricted to establish factory only on industrial park.

All Completed industrial parks do not have the features of industrial park. Because some of these industrial parks that were built as an industrial zone applied to the Ministry of Industry and Trade and got the identity of industrial park in order to benefit from incentives of industrial park. Not only location selection and physical structure of these industrial parks but also scales of the firms are so different than industrial parks built systematically. The common features of these industrial parks are that they were established inside the city or just touching the city.

It appeared that most of completed industrial parks were established in developed regions and practicing of industrial parks up to now has not been effected on obtaining interregional balance.

In Turkey, the usage of industrial parks as a means of planning tool became less. Although there is a certain location selection procedure of industrial park, industrial parks have not been seen as a part of land use of comprehensive plan of the province and its hinterland. In other words, locations of industrial parks are selected individually and present criterions determined location selection does not serve to the objectives of place organization. The economic and social importance of location selection is not still understood. Therefore the present practicing turns into creating a place that every types of industry group together near the centre of city.

The location of industrial parks determines the development directions of city. The land of industrial parks that are selected in agricultural land and it is surrounded by agricultural land. Surrounds of industrial park change into residence areas soon and become united with where industry is dense despite the fact that it is not put forward in the implementation plan. As a result of attractive characteristic of industry, this case may create not only settlement problems regarding features of lands that stay between industry and residential land but also may cause environmental problems regarding unplanned and unsystematic settlement areas nearby industry.

The process of city and region planning and establishment and location selection of industrial parks work independent. Because these two processes are not joined, unexpected cases occur and soon after industrial park starts operating if plans of city are not revised, they loose their functions. Thus, unexpected urban expansion that are not suggested in master and implementation plan occur. Because the institutions and foundations that do plans are not authorized on deciding where industrial parks will be established, doing plans they do not consider the economic, social and place effects.

Location selection committee does not do any studies about effects of industrial park on nearby environment-settlements. So soon after industrial park has been established, the area between settlements and industrial park is build unsystematically. If industrial park is established on border of municipality, the municipality is asked for its opinion but even if industrial park is established near settlements but not on borders of municipality, opinion of municipality is not asked and municipality is not asked to participate in location selection committee. The reason under all these deficiencies is that industrial parks in Turkey are still not seen as a means of guiding planning tool so they are seen as the public investment that present plots with ready infrastructure for ordinary industrialists. Although industrial parks are very important means of urban land use that guide urban development with transportation system, small industry sites, commerce, residence and employment are pulled to surroundings.

The Reasons for Industrial Parks Not Being Able to Reach Success

We could gather the reasons for industrial parks not being able reach their objectives in Turkey under 5 topics.

The first one is location selection of industrial parks is inconvenience. Location selection of industrial parks is done according to administrative criterions of province and district instead of economic criterions such as economic provisions of near environment and hinterland. In the developed provinces almost in every district, in the normal or undeveloped provinces in the centers at least one industrial park has been established or is being tried to be established.

In studies of 1/100000 scale threshold analysis and 1/25000 scale of alternative areas, no importance attached to location selection criterion. The feasibility studies after area allotment are done for formality process. Incorrect location selection creates a lot of negative effects on planned development and environment problems. Many industrial parks have been established on agricultural lands and attractive features of industrial parks pull residence and commerce activities to its surrounding. (Özdemir, 1990)

Second one is lack of coordination. Although industrial park law authority and commitment of institutions were determined, problems in practicing are going on. This deficiency reflects to every stage of industrial park; from stage of decision establish industrial park to stage of settling down factory.

Another important lack of coordination is low output resulted from connecting type and scale of industry according to some certain criterions but not practicing them. Particularly in the

developed regions a selective approach is necessary about industry types. Since there is not enough demand for industrial parks established and run in less developed regions. The rate of encouragements should be increased in order to pull industry from developed regions to undeveloped rural regions.

Generally, industrialists choose to obtain plots individually. They usually establish their factories on plots of which infrastructure are done either by the municipality or by the public establishments. Because there are not any lawful and managerial practices that force the industrialist, who wants to establish medium and large scale industry establishments, to establish his factory in industrial parks. These industrial areas that form irregularly usually generates unwanted direction of growth and cause serious problems regarding land usage plan and economics.

The third one is lack of financial source. Because inadequate source that is provided by the ministry of industry and commerce from its own budget for construction of industrial parks is divided into many industrial parks, constructions of infrastructure in industrial parks go so slowly. The ministry should complete the projects that have priorities in industry and should have this as a principle instead of enforcing a lot of industry at once. (Balaban, 2000)

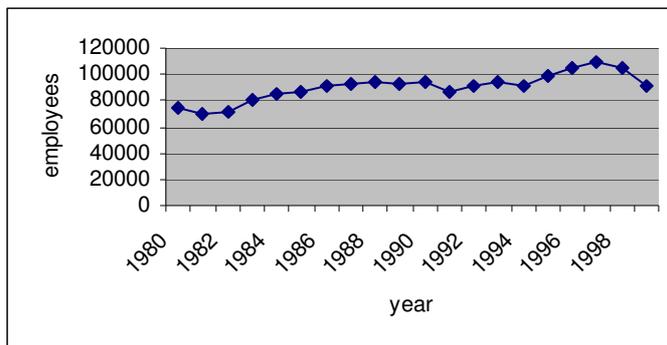
The fourth one is industrial parks policies that are determined in development plans in details but not practiced. The ministry according to the policies and expected benefits did not do industrial parks planning on macro scale by developing strategies. Deciding on establishment of industrial parks, only micro scale criterions of location selection are checked.

The fifth one is that the legality of industrial parks law became late.

4 Case study

Izmir has been one of center of the trade and industry in Turkey and Aegean region. After 1960 in İzmir and its surroundings, big companies shared with foreign capital started to be established. However, Turkish economy lived financial crises in 1980, 1994, 1998, 2000 and 2001 that effected negative effects on manufacturing industry and employment of İzmir. This section, between 1980-2000 numbers of employees who were working in manufacturing industry of İzmir is examined. Examining development of employment of izmir so to years between 1980- 1997, up to 1997 although there had been decreasing in some years, in general employment increased.

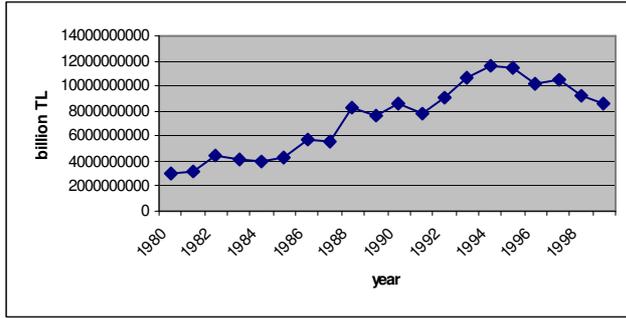
Graph 3. Employment of Manufacturing Industry in İzmir as to Years



Source: SIS, İller itibariyle Gayri safi yurtiçi hasıla, Ankara

Examining the added value created by manufacturing industry of İzmir; in 1980 it was 3068 trillion TL and in 2000 it was 8657 trillion TL by 2003 unit price.

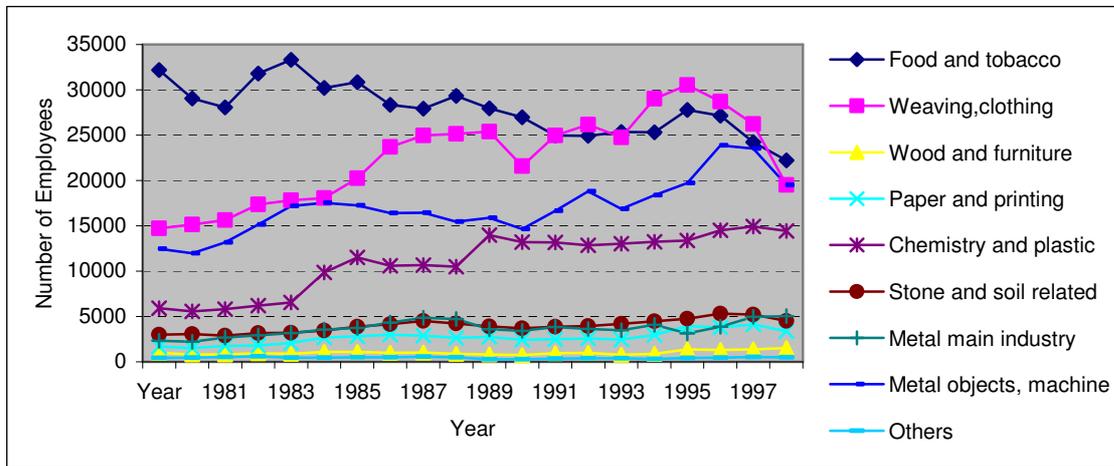
Graph 4. Created Added Value of Manufacturing Industry of İzmir by 2003 Prices



Source: SIS, İller itibariyle Gayri safi yurtiçi hasıla, Ankara

Examining the employees and created the added value in manufacturing industry in İzmir between 1980- 1997 there was a trend of decrease. Between 1997- 1999 there was an increase because of the economic crisis but in general it was on increase trend.

Graph 5. Employment of Manufacturing Industry in İzmir as to Sectors



Source: SIS, İller itibariyle Gayri safi yurtiçi hasıla, Ankara

Examining employment and created the added value of nine sectors that form manufacturing industry between 1980-1999, in food, drink and tobacco industry and other manufacturing industry sectors employment in general had a decrease trend. Despite the sudden decrease in food, drink and tobacco industry sector which created the highest employment continued the highest employment in 1999. In the other 7 sectors employment was generally on increase trend. Although added value in all sectors has been decreasing lately, in general the trend was on increase.

Analyzing Industrial Parks

In İzmir there are 20 industrial parks that are active and on site analyses-project stage in total. One of them is active and has completed infrastructure work, 6 industrial parks are on the stage of construction and 13 industrial parks are on the stage of site analyses and project.

The first thought of establishing industrial park in İzmir was in 1968 during studies of Master Plan of İzmir. The Project of 1/25 000 scale Master Plan of İzmir completed in 1973 and Aegean Region Chamber of Industry (EBSO) expressed the importance and necessity of establishing an industrial park. In 1976 in order to prevent pollution caused by disorganized industries in İzmir and contribute to developing of the city, with the aim of gathering all industries in a certain area Atatürk industrial park was established. Infrastructure works completed in 1990. In the park, 22000 people are employed now. In fact it is estimated that it

will provide 40000 employments when it gets full with the new land will be opened for industry. (İzmir Atatürk Industrial Park Report, 2002)

İzmir-Menemen leather industrial park is established in 1988 as second industrial park. Leather industry establishments, that had been present for long period around İzmir-Yeşildere, were decided to continue their work in a more productive region not only because of environment pollution they cause but also decentralize industry. In order for the parks to become more attractive and increase its exporting, it was decided in 1998 to be free zone. The objectives of free zones are fairly different from industrial parks on administrative structure, criteria for location selection and activities allowed in the zone. In industrial parks only industry manufacturing establishments are allowed to be established, whereas in free zones manufacturing, banking, selling insurance, storing and commerce activities are allowed. (www.idosb.org.tr)

Examining established industrial park through years; particularly between 1997- 2000 there is a great increase in number of industrial park.

Although, in development plans specialized industrial parks were aimed to be established in big cities like İzmir, only six of industrial parks decided to be established as specialized.

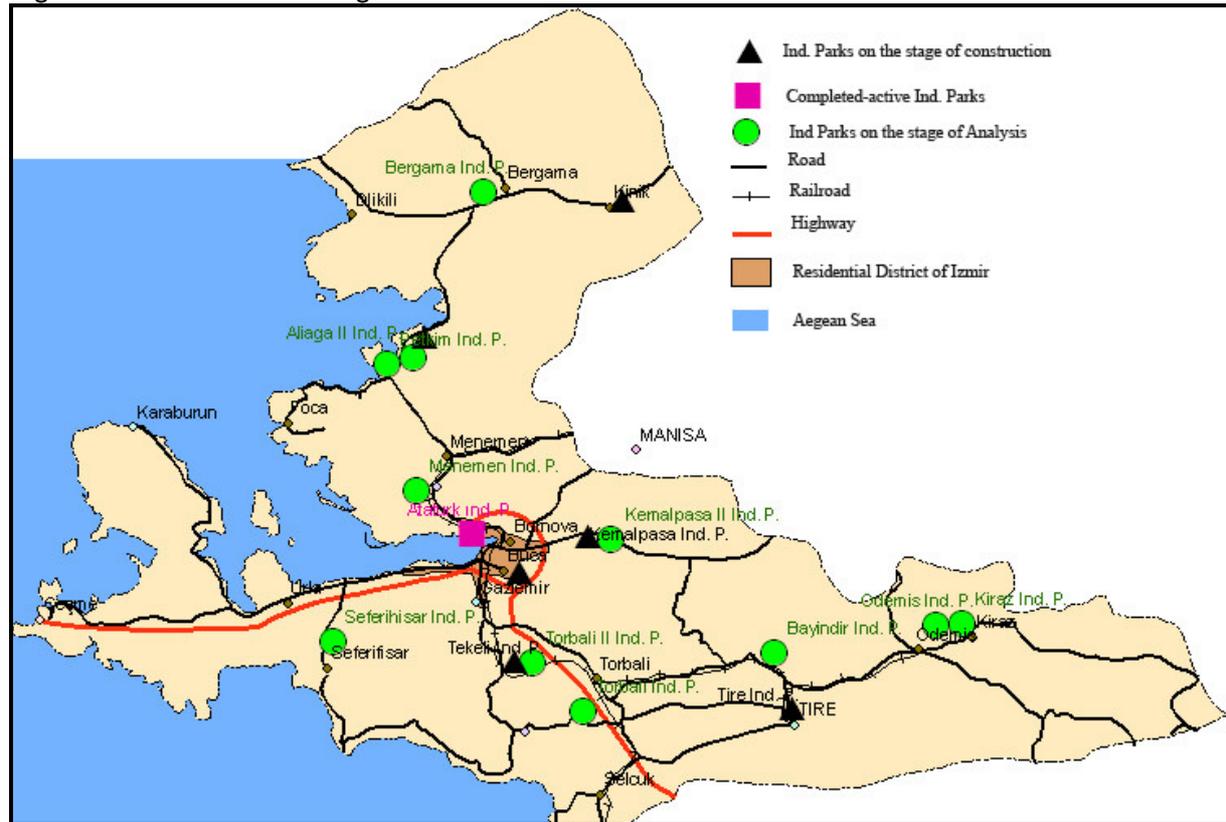
Table 6. Start and Finish Date and the Amount of Given Loan of Industrial Parks

Name Of Industrial Park	Ind. Park Type	Size Ha	State	Number of factory
Completed industrial Parks				
Atatürk	Mixed	631	Active	423
Industrial Parks on the stage of construction				
Kemalpaşa	Mixed	410	Studies on project are going on	150
Tire	Mixed	400	Construction of infrastructure is going on	14
Buca	Specialized	53	Construction of infrastructure is going on	8
Kinik	Mixed	81	Construction of infrastructure is going on	3
Aliağa I	Mixed	922	Construction of infrastructure is going on	
Tekeli	Mixed	195	Construction of infrastructure is going on	
Industrial Parks on site analyses project stage				
Bergama	Mixed	174	The studies on project are going on	
Petkim	Specialized	79	On the stage of site analysis	
Aliağa li	Mixed	400	Location selection was done	
Kiraz	Mixed	85	Location selection was done	
Mermerciler	Specialized		location selection is going on.	
Plastic	Specialized	215	Location selection was done	
Bayındır	Specialized	260	Location selection was done	
Torbali I	Mixed	500	Location selection was done	
Seferihisar	Mixed	128	Location selection was done	
Torbali II	Mixed	130	Construction of infrastructure is going on	
Kemalpaşall	Mixed	270	Location selection was done	
Ödemiş	Mixed	300	The studies on project are going on	
Çiçekçilik	Specialized		Location selection is going on.	

Source: The Ministry of Industry and Trade, EBSO and the Report of Location Selection Committee of Industrial Parks

After the economic crisis in 2000 and 2001 there have been a great number of decreases in number of members of industrial parks. Furthermore, directorates of industrial parks started to meet difficulties of collecting membership fees.

Figure 1. Location and Stage of Industrial Parks Established in İzmir Province



Source: Esri Map Archives-Represented by Ersin Türk

In 1993, according to 'Aegean planned development model' prepared by EBSO, it was decided for industrial parks to become widespread throughout province accepting that industrial parks in İzmir would play pioneer role and speed up industrialization. So 18 industrial parks were established in 10 years or decided to be established. By means of established industrial parks the industrial districts that are disorganized in the city centre, started to move to the parks and new entrepreneurs were given the chance to consider the advantages of industrial parks and to invest in these parks. However, evaluating the last stage, industrial parks did not speed up industrialization as expected, the demand for them was under than expected and they could not used as an urban development tool. In general it can be said that practices of industrial parks in İzmir have been unsuccessful. The reasons for this failure can be gathered under a few topics;

First, establishment decisions and location selections of industrial parks were not done according to a plan, program and demands. Every county saw the other county as rivals and made effort to establish an industrial park in its boundary. In 10 years industrial parks were become widespread and at least one industrial park established for each county. Thus, İzmir had the greatest number of industrial parks in Turkey. But comparing filling rate of industrial parks, membership numbers, active industrial parks in İzmir to other provinces, İzmir is far behind most provinces. The reason for industrial parks to become widespread in İzmir is that EBSO sees industrial parks as means of taking away the land and sharing the public investments.

Second, until now the municipality of İzmir has not had a master plan that determines directions of urban development and locations of industrial parks. In addition, the Industrial Park Law does not necessitate participation of the municipality of İzmir to location selection of industrial park out of the boundary of municipality. Therefore, except Ataturk industrial park and menemen leather industrial parks, locations of industrial park have been selected

spontaneously. Therefore, they have not used as an urbanization tool and they have effected urban development negatively.

Third, generally, industrial parks have been established on national treasury lands near the centre of counties but out of the municipality boundary. Since this practice aims to benefit the transportation facility, employees potential and urban services of city without independent from the city. This has caused pressure on industrial parks to be established nearby frontiers of residence settlement area. Areas that stay between industrial park and urban areas soon after become residence settlement in a whole although this has not been proposed in the implementation plan. This fact creates such problems as harm to agriculture land, spoiling natural environment, creating illegal urban growth and social problems.

Fourth, some of industrial park is established nearby each other. For example, Bergama industrial park is very close that there are Kınık industrial park of which almost all infrastructure works completed, waiting for industrialists and 30 km to Bergama industrial park and Aliağa industrial park is 40 km to Bergama industrial park infrastructure works started. Thus, it will not be economic for all Bergama, Kınık, and Aliağa industrial parks.

In conclusion, based on the law and the objectives of SPO each city should make industrial parks planning. The municipality of İzmir has been preparing a master plan according to new metropolitan law that broadened the boundary of municipality 50 km. This law added many new counties in the municipality of İzmir. This is very important opportunity for İzmir and the industrial parks in İzmir. We have not known what the planning decision on industrial parks is but we will suggest some advices based on analysis of practice of Turkey and objectives of SPO. First, examining development of employment of İzmir as years between 1980- 1997, in general employment is increased slowly. Thus, we can predict that future need of industrial park land of İzmir will be low. According to this determination, after the all industrial parks are complete, they will cause idle capacity. The industrial parks that are completed and the stage of construction will provide the demand of industrial park land in future. Therefore, industrial parks on the stage of analysis should be scrutinized. Second, aim of the balanced regional development, specialized industrial park should be encouraged in İzmir. In these specialized industrial parks, industrial establishment will create high added value. Third, İzmir has only three growth direction that are developed south direction (Gaziemir-Menderes-Torbali), southwest direction (seferihisar-güzelbahçe), north direction (Çiğli-Menemen). Except south direction that has developed agricultural land, other directions have industrial parks and urban development potential. Thus, industrial parks on the analysis stage will be going over.

Conclusion

Industrial parks properly contribute to the objectives of encouraging industry, systematic urbanization, balanced regional development and protecting environment.

Macro policies and expected benefits regarding industrial parks are stated in the development plans. Up to now, they have not been realized. According to data of 2004, considering growth of industrial parks for the last 50 years, in the industrial parks that are active, number of factories and the capacity of employment and present employment are insufficient. As to allotment rate, the filling rate is very low. And industrial parks have not been used as an urban development planning tool. In practice there has not been a strategy and plans in order to adopt macro policies of industrial parks. "A master plan of industrial parks of Turkey" that includes determination of where industrial parks should be established throughout the country should be prepared. And, structure and historical development of manufacturing industry of each city should be analyzed and an industrial park planning should be made based on the law and the objectives of SPT.

REFERENCES

- Balaban Osman (2000) *Critical Evaluation of Organised Industrial Parks as an Urban Policy in Turkey* Ankara: Unpublished Master Thesis, METU
- Bredo William (1960) *Industrial Parks Tool For Industrialization* California: Free Press
- Çezik Asuman, Eraydın Ayda, (1982) *Türkiye’de Organize Sanayi Bölgeleri (1961-1981)* Ankara: DPT Yayınları No:1839
- Directorate Of The Organized Industrial Park (1999) *Feasibility Study for Aliğa Organized Industrial Park* İzmir: Unpublished Report
- Onat Esen (1969) *Organize Sanayi Bölgeleri Fiziki Planlama Esasları* Ankara: TOBB Yayınları
- Francis Colin & Erkman Suren (2002) *Environmental Management For Industrial Parks- A Background Paper On The UNEP-DTIE Approach* Genova
- İzmir Atatürk Organize Sanayi Bölgesi (1992) *İzmir Atatürk Organize Sanayi Bölgesi Bilgi Kitabı*, İzmir
- Özdemir Mahmut (1990) *Türkiye’de Organize Sanayi Bölgeleri* Ankara: TOBB Yayınları
- Resmi Gazete (2002) *Organize Sanayi Bölgeleri Uygulama Yönetmeliği* Ankara: Başbakanlık Mevzuatı Geliştirme ve Yayın Genel Müdürlüğü Yayınları
- Resmi Gazete (2001) *Organize Sanayi Bölgeleri Yerleşimi Yönetmeliği* Ankara: Başbakanlık Mevzuatı Geliştirme ve Yayın Genel Müdürlüğü Yayınları
- Resmi Gazete (2000) *Organize Sanayi Bölgeleri Kanunu No: 4562* Ankara: Başbakanlık Mevzuatı Geliştirme ve Yayın Genel Müdürlüğü Yayınları
- Sanayi ve Ticaret Bakanlığı, Küçük Sanatlar ve Sanayi Bölgeleri ve Siteleri Genel Müdürlüğü (1998) *Organize Sanayi Bölgeleri ile İlgili Mevzuat* Ankara: Afşar Matbaacılık
- SIS (1995) *İller İtibariyle Gayri Safi Yurtiçi Hasıla, (1987-1994)* Ankara: DİE Yayınları
- SIS (1997) *İller İtibariyle Gayri Safi Yurtiçi Hasıla, (1995-1996)* Ankara: DİE Yayınları
- SIS (1998) *İller İtibariyle Gayri Safi Yurtiçi Hasıla, (1997)* Ankara: DİE Yayınları
- SIS (2000) *İller İtibariyle Gayri Safi Yurtiçi Hasıla, (1998-1999)* Ankara: DİE Yayınları
- SIS 1980-1999 Yılı İmalat Sanayi II Özet Tablosu (10+) Ankara: DİE Yayınları
- SPO (1976) *Organize Sanayi Bölgeleri Özel İhtisas Komisyonu Raporu* Ankara: DPT Yayınları
- SPO *First Five-Year Developmen Plan (1963-1967)* Ankara: DPT Yayınları
- SPO *Second Five-Year Developmen Plan (1968-1972)* Ankara: DPT Yayınları
- SPO *Third Five-Year Developmen Plan (1973-1977)* Ankara: DPT Yayınları
- SPO *Fourth Five-Year Developmen Plan (1979-1983)* Ankara: DPT Yayınları
- SPO *Fifth Five-Year Developmen Plan (1985-1989)* Ankara: DPT Yayınları
- SPO *Sixth Five- Year Developmen Plan (1990-1994)* Ankara: DPT Yayınları
- SPO *Seventh Five-Year Developmen Plan (1996-2000)* Ankara: DPT Yayınları
- SPO *Eighth Five-Year Developmen Plan* Ankara: DPT Yayınları
- Location Selection Committee of Aegean Clothing Industrial Park (2000) *The Report of Location Selection Committee of Aegean Clothing Industrial Park* İzmir: Unpublished Report
- Location Selection Committee of Aliğa I Industrial Park (1997) *The Report of Location Selection Committee of Aliğa I Industrial Park* İzmir: Unpublished Report
- Location Selection Committee of Bayındır (Food) Industrial Park (1999) *The Report of Location Selection Committee of Bayındır Industrial Park* İzmir: Unpublished Report
- Location Selection Committee of Bergama Industrial Park (1996) *The Report of Location Selection Committee of Bergama Industrial Park* İzmir: Unpublished Report
- Location Selection Committee of Kemalpaşa Industrial Park (1991) *The Report of Location Selection Committee of Kemalpaşa Industrial Park* İzmir: Unpublished Report

- Location Selection Committee of Kiraz II Industrial Park (2000) *The Report of Location Selection Committee of Kiraz II Industrial Park* İzmir: Unpublished Report
- Location Selection Committee of Menemen Industrial Park (2000) *The Report of Location Selection Committee of Menemen Industrial Park* İzmir: Unpublished Report
- Location Selection Committee of Ödemiş Industrial Park (1994) *The Report of Location Selection Committee of Ödemiş Industrial Park* İzmir: Unpublished Report
- Location Selection Committee of Seferihisar Technopark Industrial Park (2000) *The Report of Location Selection Committee of Seferihisar Technopark Industrial Park* İzmir: Unpublished Report
- Location Selection Committee of Torbalı II (Pancar) Industrial Park (1999) *The Report of Location Selection Committee of Torbalı II (Pancar) Industrial Park* İzmir: Unpublished Report
- *The Report of Master Plan of İzmir Tekeli Manufacturing Industrial Park* (2000) İzmir
- Türk Ersin (2003) *A Critical Evaluation of Space Requirements of Existing Industrial Parks in İzmir* İzmir: Unpublished Master Thesis, İYTE
- Tüstaş Sınai Tesisleri A.Ş. (1996) *Ödemiş Organize Sanayi Bölgesi Fizibilite Etüdü* Ankara
- UNIDO (1968) *Industrial Parks in Europe and the Middle East* Genova: United Nations Publication
- UNIDO (1997) *Industrial Parks Principles and Practice* New York: United Nations Publication
- United Nations (1978) *The Effectiveness of Industrial Parks in Developing Countries* New York: United Nations Publications
- United Nations (1978) *Guidelines for the Establishment of Industrial Parks in Developing Countries* New York: United Nations Publication

Web Sites

- www.ebso.org.tr
- www.idosb.org.tr
- www.sanayi.gov.tr
- www.tosbi.org.tr