Planning and Implementation Problems on Izmit Coastline

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Abstract. Throughout the history, being located on a coastal strip has made an immense contribution to a city’s creation of its unique identity. However, the rapid urbanization around the world has also had an impact on the coastal cities, causing some changes in their identities. As in some other coastal cities, various coastline structural readjustments in the city of Izmit have brought out many problems, especially on the city morphology and skyline. Izmit's central location with easy access to railway, seaway and highway connections has played a key role in the rapid growth of its industry. Nevertheless, while being transformed into an industrial city, many different coastline readjustments introduced in Izmit have gradually made it lose its traditional coastal city identity. In view of this loss, the city residents' changing use of and their satisfaction with the waterfront of the city were analyzed. In this study, a survey was conducted with 100 people living in Izmit. The participants were asked questions about accessibility to the city center, street facilities, green areas and parking areas, public transportation, pedestrian roads and the adequacy of the bicycle roads available. The results are then analyzed and discussed.

1. Introduction
Throughout history, cultures have usually settled nearby various bodies of water such as seas, rivers or lakes because having access to water allows people to easily meet their needs regarding trade, transportation, protection, food, and accommodation. Coastal cities have been affected by global developments all over the world and their coastal identities have changed [1]. With industrialization, the railway appears as an alternative mode of transportation, but due to the need to be positioned close to the coast, the connection between the city and the coast is usually severed [2].

As a result of the changing conditions of use and the variety of functions demanded from the coastline, the coast is continuously reshaped, which results in changes in the demographic structure, population growth and increased coastal utilization capacity. Considering that coastal areas are cultural heritage sites and not owned by individuals per se, it is necessary to establish a conservation - use balance. The sustainability of coastal areas, which are also strategic points in political and economic terms, will be possible with such approaches and policies [3].

The coastline districts of the city of Izmit, which is located by the shore of the sea of Marmara, have experienced various transformations. By earthfilling and building embankments on the city's waterfront, the redevelopment plan has led to irreversible changes on the city coastline. The purpose of this redevelopment plan was to help improve the use of the coastline by the people of the city, but as a result of the change, access to the waterfront of the city has become more difficult. The most important feature of the coastal life of the city, standing next to the sea but not touching the water has become a coastline. In this study, 100 people using the waterfront facilities were surveyed to reveal their satisfaction with the waterfront use. The results are analyzed and discussed in light of the relevant literature.
2. Spatial Development of Izmit
Located on the eastern shore of the Gulf of Izmit, in the Marmara region, the city of Izmit is an important road and rail transit route between the Asian and European parts of Turkey. Izmit is one of the most important industrial settlements in the Marmara region with its industrial and commercial maritime transportation.

The commercial and social life of Kocaeli (Izmit) began to revive after the railway, which operated between Istanbul and Izmit and later operated on the Haydarpaşa-Ankara route since 1873, reached the city. Due to its close proximity to Istanbul and the variety of transportation facilities, the city has rapidly industrialized after the establishment of the new Republic [4].

The city's transition to the planned period was in 1934 with the zoning plan made by Hermann Jansen. In this plan, Jansen emphasized that the city should keep being a coastal city by preserving its natural and historical wonders and that the coastline should be arranged in harmony with its new identity as a modern city. With the introduction of the railway between Haydarpaşa and Izmit in 1875, the urban space transformation began, and the railway and the sea began to be used together. Although it was intended that the dock, which is the first earthfill area of the city, would not be used for logistics and the waterfront was supposed to become a public space as a promenade area, the rapid industrialization in the following period has prevented the achievement of these goals [5].

In 1948, the second zoning plan of the city, which was opened for a competition and won by Kemal Ahmet Aru and Gündüz Özdes, envisioned the city as a commercial hub and proposed strengthening the coastal district and its commercial development by following the Jansen plan. However, with the construction of the Istanbul-Ankara highway on the coastline, the city's connection to the sea has become much weaker in the following years [5].

The most important factor affecting the spatial development of Izmit was industrialization, and this development coupled with the construction of a paper mill, has made economic and social life even more mobile and has led to the heavier city traffic with higher number of motor vehicles. New roads, squares and boulevards were opened to address this high traffic density. The construction of coastal embankments during these arrangements accelerated the transformation of the city and led to the complete loss of the coastal identity of the city.

The third Development Plan of the city was determined in the competition opened by Iller Bank (The Bank for Provinces) in 1972-84, and in line with this plan, the filling of the Ankara-Istanbul road and passing it by the shore caused the city's connection with the sea to be completely severed. In 1977, a competition for Izmit coastal culture, fair and recreation areas planning was held to develop the areas surrounding the Izmit Gulf coastal area as a whole and to coordinate the urban plan efforts. The Sekapark Industrial Transformation Project was prepared by Kocaeli Metropolitan Municipality for the purpose of introducing open green fields and recreation areas on the land of SEKA paper mill, which was closed in 2004. This was the first time an industrial transformation project of this scale had been implemented in Turkey, and the factory (SEKA) land provided an important recreational service for the city [6].

3. Izmit Coastline Survey
A survey was conducted with 100 people using Izmit coastline to determine the problems of Izmit coastline planning, implementation and coastal use, and the results were presented in figures.

The majority (41%) of the participants were between 18 and 24 years old, 30% were under 18, 10% were aged 25-39 and 50-64, 6% were 65 and over, and 3% were between 40 and 49 years old. Thus, approximately 80% of the participants were under the age of 40 (figure 1).
Figure 1. Ages of the Participants Surveyed

More than half of participants were high school graduates, followed by college graduates, middle school, graduate and elementary school graduates, respectively (figure 2).

Figure 2. Education Level of the Participants

Half of the participants were female and the other half male and half of them were employed (figure 3 and figure 4).

Figure 3. Woman Gender and Employment Status of the Participants Man

Figure 4. Man Gender and Employment Status of the Participants

More than half of the participants reported having lived in the city for more than 15 years, 24% said they had been here for five years and less, 10% said they had been here for 10-15 years, while 9% said they had lived here for less than 1 year ‘figure 5’.

Figure 5. Residential Status of the Participants
Figure 6. Occupational Status of the Participants

Almost half of the participants were government officials, while the others were trade workers and managers (figure 6).

Figure 7. Status of using the Izmit coastal strip

Of those surveyed, 92% said they used the coastline, while 8% reported not using the coastline at all (figure 7).

Figure 8. The frequency of using the Izmit coastal strip
The frequency of coastline use of the participants was as follows: 37% stated that they use it 2 to 4 times a week, 28% 1-3 times a month, 20% once a week, and 15% reported using it 5-7 times a week. The coastal strip appears to be used several times a week by the vast majority of those surveyed (figure 8).

![Reasons of use](image1)

*Figure 9. The reasons for using the Izmit coastal strip*

The majority (60%) stated their reason for using the coastline as enjoying the sea view, with recreational use stated as the second most frequently given reason, followed by going to restaurants, attending cultural and sporting events ‘figure 9’.

![Positive aspects](image2)

*Figure 10. The most enjoyable aspects of the Izmit coastal strip*

The participants reported that their most favorite part of the coastline is the green spaces, followed by picnic, culture, sports, and transportation facilities (figure 10).
Figure 11. The most complained aspects of the Izmit coastal strip

Hygiene was the primary complaint, followed by being disconnected from the sea, the lack of scenic terraces and performance areas and access problems. Other issues of complaint were the lack of a park for pets, a park for children, and cafes (figure 11).

Figure 12. The functions to be added to the Izmit coastal strip

More than half of the participants wanted scenic view terraces, while nearly half of them wanted more piers. Those who wanted a water park were the third highest in number, followed by those who wanted more green spaces and sports fields (figure 12).
Figure 13. Satisfaction with the Izmit coastal strip

Asked which services they enjoyed most on the coastline, the majority of the participants pointed at the green areas, infrastructure, public transport, event areas and urban (street) furniture. But those less satisfied also included urban furniture, event spaces and other public service issues (figure 13).

4. Conclusions

In this study, the residents of the city were asked various questions about their use of the coastal strip (waterfront), what services they are satisfied or dissatisfied with, and their expectations from it. The results were discussed and presented in figures.

The abundance of green areas, picnic areas, safety, and the ease of transportation are among the positive features of the plan. The coastline was also reported to be easily accessible from the city center through public transportation and bicycle paths. It was also reported that the area is laid out in a way that gives the elderly and the disabled appropriate service, ramp and rest areas with adequate urban furniture.

The people of the city want to be close to the waterfront to relieve the stress of the city life and to take advantage of the positive and relaxing effect that the water element adds to human psychology. Therefore, the coastal strip is used for picnicking, strolling, enjoying the sea view.

The lack of connection with the sea, the lack of scenic areas such as the panoramic terraces and amphitheaters, and the lack of bicycle rental points are the major grievances that the residents complain about. The lack of cultural activities and sports facilities is another point of dissatisfaction.

The participants also expressed their wish to be closer to the water and the need for more viewing terraces.
Restoring the coastal public areas back to the cities lost by the industrial construction is the primary motive. Because of the unique values of the coast, the contribution it provides to the cities is remarkable. Especially in cities that still function as seaports, the separation of the coast into public areas causes various problems. That maritime, rail and road transport have to be interconnected leads to the separation of cities from the coast, which urges the people of the city to move away from the coastal life and culture. Thus, industrial coastal area transformation projects have begun to be implemented in Turkey, as in the rest of the world. One of these transformation projects is the Seka-Park Project in İzmit.

In İzmit, where various competitions have been held and zoning applications implemented so far, the original plans have turned out to be inapplicable for various reasons. Although economic reasons are pointed out for the implementation problems, oftentimes it is the plan and implementation decisions that are erroneous. The decision to build the current road and railway by the sea, which led to the weakening of the city's relationship with the coast, is one of these major errors. It is observed that this not only has a negative impact on the city physically, but also on its natural and cultural structure. It has gradually led to the destruction of the coastal identity in the city's memory and to the abandonment of the coastline to functions other than the use of the city for recreational purposes.

To rediscover the coastal areas of the city, transformation projects adopting an environmental and sustainable planning approach were needed. There have been various changes in the city created by the coastal area projects carried out for this purpose.

As a result of the arrangements and redevelopments implemented in line with this project, the coast has been subject to irreversible changes by earth-filling in some places and excavations in others. While the real purpose of the transformation was to restore and revitalize the coastline to its former identity, with this project, the coastline was transformed into unusable urban districts. The natural coastal life and culture of the city has now been replaced by a way of life that simply looks on some seawater that it cannot touch.

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