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## **THE IMPACT OF ENVIRONMENTAL PLANS ON THE INDUSTRIAL STRUCTURE AND DEVELOPMENT OF CITIES: THE CASE OF TEKİRDAĞ, TURKEY <sup>1</sup>**

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**Abstract:** Although the unplanned and uncontrolled industrialization in Tekirdağ increased the rank of Tekirdağ from 23rd in 1973 to the 10th place in 2013 in the development ranking among the provinces in Turkey, industrialization and industrial facilities with high environmental impacts brought many environmental problems and started to pose a great threat in terms of environmental sustainability in Tekirdağ. Especially after the 2008 global financial crisis, environmental sensitivity has gained an international dimension. In a similar vein, the Ergene River Basin Environmental Management Master Plan and 1/100,000-scaled the Thrace Sub-Region Ergene Basin Environmental Plan came into force in 2009 upon the pollution in Tekirdağ, Turkey and its surrounding received governmental attention. 1/25,000 Scale Tekirdağ Provincial Environmental Plan and 1/5000 Scale Master Development Plans which were prepared and elaborated in consideration of the Thrace Sub-Region Ergene Basin Environmental Plan and 1/100000-scaled Thrace Sub-Region Ergene Basin Environmental Plan affect the nature and structure of the industry in Tekirdağ and the district-based development of Tekirdağ's districts. After examining the effects of environmental plans on the structure and development of the industry in Tekirdağ, this study analyzes the impact of environmental plans on court decisions about the attempts to set up new industrial areas in Tekirdağ.

**Key Words:** Industrialization, Environment, Environmental Plans, Spatial Development of Cities, Tekirdağ.

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## ÇEVRE PLANLARININ KENTLERİN SANAYİ YAPISINA VE GELİŞİMİNE ETKİSİ: TEKİRDAĞ İLİ ÖRNEĞİ

**Öz:** Tekirdağ'daki plansız ve kontrolsüz sanayileşme Türkiye'deki iller arasında gelişmişlik sıralamasında 1973 yılında 23. sırada yer alan Tekirdağ'ı 2013 yılında 10. sıraya getirmiştir. Bununla beraber, ilde sanayileşme ile birlikte faaliyet göstermeye başlayan su kullanımı ve çevresel etkileri yüksek sanayi tesisleri Tekirdağ'da çok sayıda çevresel sorunu da beraberinde getirmiş ve çevresel sürdürülebilirlik açısından büyük bir tehdit oluşturmaya başlamıştır. 2008 global finansal krizinden sonra, çevresel duyarlılık uluslararası boyut kazanmıştır. Benzer şekilde, Tekirdağ ve çevresindeki kirliliğin ulusal boyutta kamuoyunun ve hükümetin dikkatini çekmesi üzerine 2008 yılında Ergene Nehri Havzası Çevre Yönetimi Master Planı ve 2009 yılında 1/100000 ölçekli Trakya Alt Bölgesi Ergene Havzası Çevre Planı hazırlanmıştır. Trakya Alt Bölgesi Ergene Havzası Çevre Planı dikkate alınarak hazırlanan 1/25.000 Ölçekli Tekirdağ İl Çevre Düzeni Planı ve 1/5000 Ölçekli Nazım İmar Planı Tekirdağ'da sanayinin yapısını ve Tekirdağ ilçelerinin gelişimini etkilemektedir. Bu çalışmada Tekirdağ'ı ilgilendiren çevre düzeni planlarının ilin sanayi yapısı ve gelişimi üzerindeki etkileri ve yeni sanayi alanları oluşturma çabalarına ilişkin mahkeme kararlarına etkileri analiz edilmiştir.

**Anahtar Kelimeler:** Sanayileşme, Çevre, Çevre Planları, Şehirlerin Mekansal Gelişimi, Tekirdağ.

### Introduction

The theory of spatial sizes of cities proposes that cities that reach a certain size will expand towards the closest and most suitable places. Increase in workers' wages, the price of industrial parcels, logistics costs, and economic cost of environmental effects will cause industries in cities to divert to other cities. This spatial expansion will be towards the nearest cities in the surrounding. Also, it will be in order of availability as such spatial expansion will be from the surrounding cities to the most suitable first and then to the less suitable ones.<sup>3</sup>

Tekirdağ city is located in the Marmara Region of Turkey. It is situated on the Europe continent of Turkey, which is also known as the East Trace

<sup>3</sup> Jan K. Brueckner and David A. Fansler, "The Economics of Urban Sprawl: Theory and Evidence on the Spatial Sizes of Cities", The Review of Economics and Statistics, vol. 65, no.3 (1983), pp. 479-482; Kurt Paulsen, "Yet Even More Evidence on the Spatial Size of Cities: Urban Spatial Expansion in the US, 1980-2000", Regional Science and Urban Economics, vol. 42, no.4 (2012), pp. 561-568.

region, and the northern coast of the Marmara Sea. The city lies 145 kilometers away from the Greece border and 147 kilometers away from İstanbul which is the largest city of Turkey.

Advancement of industrial sector in Tekirdağ has happened in accordance with the theory of spatial sizes of cities. Turkey's industrial centers in big cities have expanded towards the neighboring cities. Within this framework, Tekirdağ has emerged as one of the surrounding cities towards where industrial sector in İstanbul is headed since 1980s. Besides the logistical and geopolitical position, the presence of important underground water resources, the prevailing winds that prevent air pollution in the region, and the qualified and unqualified labor force required for industrial production are the main reasons behind the preference of Tekirdağ by industrial sector in İstanbul.<sup>4</sup>

The efforts to search for a new place for the purpose of decentralization of the industry in İstanbul, the establishment of the Organized Industrial Zone in the Çerkezköy district of Tekirdağ in 1973, and the inclusion of Tekirdağ in the list of the priority regions for development in 1977 triggered the industrialization process of Tekirdağ.<sup>5</sup> Industrial enterprises in the province are concentrated in the districts of Çorlu, Çerkezköy, and Muratlı located along the tributaries of the Ergene River. The region's rich underground water resources have attracted industrial facilities based on groundwater consumption such as the textile, leather, paper and chemical sectors to the region.<sup>6</sup> Accordingly, the number of organized industrial zones in Tekirdağ has reached 14.

Although the industrial revolution brought tremendous improvements in the living standards of industrialized and industrializing countries, it led to environmental problems and a rapid increase in carbon dioxide emissions, which is considered to be the main driver of environmental and global climate change.<sup>7</sup> A similar situation occurred in Tekirdağ. The unplanned

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<sup>4</sup> Özdemir Sönmez, "Spatial Effects of İstanbul-Centered Industrial Spreading in Sub-cities: The Example of Tekirdağ", *Megaron*, vol. 11, no. 1 (2016), pp. 137-149.

<sup>5</sup> Murat Özyavuz and Elif Ebru Şişman, "Büyükşehir: Tekirdağ Metropolitan City: Tekirdağ", *Adnan Menderes Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, vol. 1, special issue (2014), pp. 194-217.

<sup>6</sup> Cem Tokatlı and Memet Varol, "Impact of the COVID-19 Lockdown Period on Surface Water Quality in the Meriç-Ergene River Basin, Northwest Turkey", *Environmental Research*, vol. 197 (2021), pp. 1-11.

<sup>7</sup> OECD, *Towards Green Growth*, OECD Publishing, Paris 2011, p.5.

and uncontrolled industrialization in Tekirdağ brought Tekirdağ from 23rd place in 1973 to the 10th place in 2013 in the development ranking among the provinces in Turkey while industrial facilities with high environmental negative externalities have caused many environmental problems in Tekirdağ and started to pose a great threat in terms of environmental sustainability.

A significant part of the industrial facilities in Tekirdağ are concentrated in the Çorlu and Çerkezköy districts of Tekirdağ, located at the beginning of the Ergene River. The Ergene River is the most important water source in the ecosystem of the East Thrace Region. Having a length of 283 km and 7 tributaries of various sizes, the Ergene River originates from the Istranca Mountains in Tekirdağ, passes through Saray, Çerkezköy, Çorlu, Muratlı, Babaeski, Pehlivanköy, Hayrabolu, Uzunköprü and Meriç districts, merges with the Meriç River in İpsala district of Edirne city, and flows into the Aegean Sea in the Saros Bay.<sup>8</sup>

The Ergene River Basin, formed by the Ergene River, is one of Turkey's 25 river basins. The Ergene River Basin covers the provinces of Tekirdağ, Edirne and Kırklareli of the Thrace Sub-Region within the Marmara Region of Turkey and accounts for 1.4% of Turkey. Approximately 1.5 million people live in the Ergene River Basin and many agricultural products such as sunflower, wheat and rice are intensively produced.<sup>9</sup>

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The foremost environmental problem of the Thrace Sub-Region is the pollution of surface water resources. The surface and groundwater quality of the Ergene River Basin has deteriorated excessively and the groundwater level has decreased due to activities that adversely affect water quality such as unplanned industrialization, unplanned urbanization, insufficient infrastructure, unconscious and uncontrolled use of chemicals in agriculture, domestic waste discharges without treatment (240,000 m<sup>3</sup>/day), discharge of industrial waste water without being purified properly (460,000 m<sup>3</sup> /day), and the unconscious and excessive consumption of underground water reserves. The rapidly increasing industry in Tekirdağ has brought not only internal migration but also regional migration in the Thrace Sub-Region, as a

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<sup>8</sup> Tokatlı and Varol, *ibid*, p. 1; Fatih Konukçu, Selçuk Albut and Bahadır Altürk, "Land Use/Land Cover Change Modelling of Ergene River Basin in Western Turkey Using CORINE Land Use/Land Cover Data", *Agronomy Research*, vol. 15, no.2 (2017), pp. 435–443.

<sup>9</sup> Ahmet Cihan Kahraman and Mustafa Özkul, *Ergene Havzası Koruma Eylem Planı Durum Değerlendirme Raporu*, Marmara Belediyeler Birliği Yayını, İstanbul 2018, p. 4; Konukçu, Albut and Altürk, *ibid*, p. 436.

result of which the population of the districts has increased rapidly and irregular urbanization has become unavoidable. Moreover, obtaining of water consumption of the industry from the Ergene River Basin groundwater has led to a decrease in groundwater resources and a fall in the dynamic water level on the Basin. The direct delivery of the contaminated water to the surface waters caused the pollution of the surface waters first and then the pollution of the groundwater aquifers fed by them. Hence, the natural flow mechanism of the river has been disrupted over time. Eventually, the water quality of the Ergene River has over time become 4th Class, that is, very polluted – it cannot be used for any purpose.<sup>10</sup>

Especially after the 2008 global financial crisis, environmental sensitivity has gained an international dimension. It is envisaged at the governmental level that the current production order is unsustainable in the world since it has led to an increase in water scarcity, resource bottlenecks, air and water pollution, climate change, and irreversible loss of biodiversity (OECD, 2011). In a similar vein, upon the pollution in Tekirdağ and its surrounding received governmental attention, the Ergene River Basin Environmental Management Master Plan was prepared in 2008 and 1/100,000-scaled the Thrace Sub-Region Ergene Basin Environmental Plan was prepared in 2009 and was approved by the Ministry of Environment and Forest according to the law no 2872 (environmental law) on 24.08.2009.

In Turkey, 1/100,000-scaled environmental plans are prepared for the protection of the natural and ecological assets of the nation while 1/25,000-scaled environmental plans are aimed to regulate functional and spatial relations between the settlement centers and their peripheral areas. On the other hand, 1/10,000 and 1/5,000-scaled environmental plans are master plans for urban development and they are prepared to identify functional details.<sup>11</sup>

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<sup>10</sup> Nüket Sivri, “Estimation of Nutrient Loads in Ergene Basin Through GIS”, Fresenius Environmental Bulletin, vol. 23, no. 12a (2014), pp. 3212-3221; Ayşe Handan Dökmeci, “Evaluation of Heavy Metal Pollution in the Ergene River Basin from a Public Health Perspective”, Turkish Journal of Public Health, vol. 15, no. 3 (2017), pp. 212-221; Kahraman and Özkul, ibid, p.5; Cem Tokatlı, “Pesticide Residues in Water and Sediment of Ergene River and Tributaries in Turkey”, Sigma Journal of Engineering and Natural Sciences, vol. 38, no. 1 (2020), pp. 361-370.

<sup>11</sup> Sultan Gündüz, Gülşen Gündüz and Ahmet Cengiz Yıldızcı, “Ecological Corridors and Custers for Environmental Master Plan and Environmental Management Studies of Istanbul”, ITU Journal of the Faculty of Architecture, vol. 8, no. 1 (2011), pp. 229-240.

1/25,000-scaled Tekirdağ Provincial Environmental Plan and 1/5,000-scaled Master Development Plan which were prepared and elaborated in consideration of the Thrace Sub-Region Ergene Basin Environmental Plan affects the nature and structure of the industry in Tekirdağ and the district-based development of Tekirdağ's districts. The following section overviews these effects of environmental plans on the city of Tekirdağ while the section 2 reviews the impact of environmental plans on court decisions about the attempts to set up new industrial areas in Tekirdağ. The last section concludes.

### **1. The Impact of Environmental Plans on the Current Industrial Structure of Tekirdağ**

Upon the Environmental Plans came into force, the establishment of some industrial sectors in Tekirdağ was prohibited, the previously established ones were made environmentally friendly, scattered industrial facilities were gathered under the roof of the Organized Industrial Zones (OIZ), the creation of new areas outside the determined industrial areas are subject to certain conditions, the prominent functions and center types for the development of the districts in Tekirdağ have been determined, and the sudden spatial expansion in industrial and residential areas and the sudden population growth arising from industry are restricted.

#### **1.1. Prohibited Industrial Activities**

Provisions of 1/100,000-scaled the Thrace Sub-Region Ergene Basin Environmental Plan, first of all, rules that the existing industrial facilities should be rehabilitated and made environmentally sensitive, and then bans the establishment of industrial facilities with high environmental pollution and water consumption, disrupting the conservation-utilization balance.

According to the article 2.10.31.1. of 1/100,000-scaled the Thrace Sub-Region Ergene Basin Environmental Plan-Plan Provisions<sup>12</sup> and the article 2.46 of 1/25,000-scaled Tekirdağ Provincial Environmental Plan-Plan Provisions<sup>13</sup>, apart from the existing legal industries that meet the environmental conditions introduced in the plan and that will be rehabilitated and made environmentally sensitive, the following industrial sectors that have high environmental pollutants and/or do not have groundwater use

<sup>12</sup> T.C. Çevre ve Orman Bakanlığı, Trakya Alt Bölgesi Ergene Havzası 1/100.000 ölçekli Revizyon Çevre Düzeni Planı-Plan Açıklama Raporu, Çevre ve Orman Bakanlığı Yayını, Ankara 2009.

<sup>13</sup> Tekirdağ İl Özel İdaresi, 1/25.000 Ölçekli Tekirdağ İl Çevre Düzeni Planı-Plan Analitik Raporu, Tekirdağ İl Özel İdaresi, Tekirdağ, 2010.

permits and cause environmental destruction will certainly not take part in within the planning area:

a) Metal hardening (with salt) b) Metal plating c) Surface cleaning (with acid) d) Textile dyeing-washing and printed fabric e) Heavy industries for mineral processing f) Textile fibre degreasing g) Facilities producing paper using cellulose and/or straw h) Rawhide processing i) Acid production and filling places j) Battery and accumulator manufacturing places k) Coal-based thermal power plant, lubricating oil factories l) Grease oil factories (petroleum derivative)

m) Pharmaceutical synthesis factories n) Heavy metal salt production o) Iron and steel production p) Petrochemical q) Chlor-alkali and r) Refinery.

The article 2.10.31.3. of 1/100,000-scaled the Thrace Sub-Region Ergene Basin Environmental Plan-Plan Provisions prescribes that the industries within the industry types specified in the article 2.10.31.1 but located in the existing legal industrial areas will make all kinds of environmental investments and can increase their production/capacity by only technology renewal within the existing built area without increasing their existing ground water usage.

## 1.2. Rehabilitated Organized Industrial Zones

Provisions of 1/100,000-scaled the Thrace Sub-Region Ergene Basin Environmental Plan requires firstly that unplanned and uncontrolled industrial areas that pose a great threat to environmental sustainability should be rehabilitated and transformed into Rehabilitated Organized Industrial Zones (OIZs) and then that the expansion on industrial areas should be accomplished by creating new Organized Industrial Zones.

1/100,000-scaled the Thrace Sub-Region Ergene Basin Environmental Plan-Plan Explanation Report suggests that industrial areas should definitely be brought under control by creating Specialized Organized Industrial Zones.<sup>14</sup> In the first place, the plan explanation report describes the current state of industrialization in the region as unplanned and uncontrolled industrial areas which poses a great threat to environmental sustainability. Thereafter, the report proposes that with the aim of solving the existing problems, the

<sup>14</sup> T.C. Çevre ve Orman Bakanlığı, Trakya Alt Bölgesi Ergene Havzası 1/100.000 ölçekli Revizyon Çevre Düzeni Planı-Plan Hükümleri, Çevre ve Orman Bakanlığı Yayını, Ankara 2009, p. 12.

scattered and uncontrolled existing industrial areas should be collected under OIZs and in this way the rehabilitation of industrial areas will be ensured.<sup>15</sup>

The article 2.11.3.8. of 1/100,000-scaled the Thrace Sub-Region Ergene Basin Environmental Plan-Plan Provisions is about Organized Industrial Zones. In the article 2.11.3.8., it is stated that the provisions of the Organized Industrial Zones Law No. 4562 and the relevant regulation are valid in these areas. The plan provisions prescribe that OIZ areas should be created in order to bring the existing scattered and irregular industrial areas to a common control and management mechanism and to minimize their negative effects on the environment. The plan provisions also states that construction conditions and locations of these areas will be determined in sub-scale plans. Subparagraph b of the article 2.11.3.8. judge that scattered and uncontrolled industrial areas will be gathered under the roof of OIZs. In terms of sectoral distribution, the article 2.10.32. states that OIZs should encourage and give weight to environment-friendly and technology-based sectors.

In 2011, by adding the temporary article 8th to the OIZ Law No. 4562 and amending the OIZ regulation, the industrial facilities scattered in the basin were brought together under the legal entities as Rehabilitated OIZs. Within this scope, 10 Rehabilitated OIZs were established. Eight of these OIZs are in Tekirdağ: Ergene 1, Ergene 2, Velimeşe OIZ, Çorlu 1 OIZ, Muratlı OIZ, Veliköy OIZ, Veliköy Yalıboyu OIZ and Kapaklı OIZ. These regions, which were initially received the status of Rehabilitated Organized Industrial Zone, achieved the status of OIZ in the following years.<sup>16</sup>

### **1.3. Restrictions on New Industrial Investments in Industrial Areas**

The provisions of 1/100,000-scaled the Thrace Sub-Region Ergene Basin Environmental Plan limits the industrial development in Tekirdağ to the existing planned industrial areas and brought limitations on new industrial investments in the existing planned industrial areas.

1/100,000-scaled the Thrace Sub-Region Ergene Basin Environmental Plan-Plan Explanation Report states that industrial facility permission should not be granted outside the industrial areas determined by planning. Similarly, the plan proposes to prevent the new industrial areas outside of existing plans among the long-term solution proposals.

Article 2.7 of 1/100,000-scaled the Thrace Sub-Region Ergene Basin Environmental Plan-Plan Provisions imposes that the previously planned

<sup>15</sup> T.C. Çevre ve Orman Bakanlığı, ibid, p. 24.

<sup>16</sup> Kahraman and Özkul, ibid, p. 23.

empty industrial areas should be filled instead of opening new industrial areas, agricultural lands shouldn't be used for industrial purposes, the areas designated as agricultural areas in the plan should be protected, and the use of agricultural areas for non-agricultural purposes should be prevented. Article 2.10.29 under the title of General Provisions stipulates that industrial development will be limited to the existing planned industrial areas that are in compliance with the upper scale plan decisions and new industry investment demands will be met by the planned vacant industrial areas. Thus, the plan prevents formation of new industrial facilities and industrial areas at the outside of the planned industrial areas.

Plan provisions also impose limitations on new industrial investments in existing planned industrial areas. With the provisions added to the Plan provisions later, the OIZ occupancy rate required to allow new industrial investments in existing planned industrial areas was increased to 75% and then to 100%. With the amendment to the Plan dated 31.12.2019, the article 2.10.41 of the Plan enforces that new industrial investments (EIA, License, Construction Certificate, etc.) cannot be allowed in existing planned industrial areas other than OIZ areas until the occupancy rate reaches 100% in the OIZs. However, if a written document stating that there are no parcels of suitable size for the facility is submitted to the Ministry by the relevant OIZ Board of Directors, the new industrial site demand can be fulfilled by the existing planned industrial areas with the proposal of the Governorship and the approval of the Ministry.

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#### **1.4. Construction of Joint Industrial Wastewater Treatment Plants**

1/100,000-scaled the Thrace Sub-Region Ergene Basin Environmental Plan includes various provisions on reducing domestic and industrial pollution in Tekirdağ. Various steps have been taken in accordance with these provisions.

The Plan imposes the establishment of treatment plants in the OIZs with the aim of preventing environmental pollution. After stating that it is essential that industrial facilities that can be located in the planning area meet the standards specified in the Water Pollution Control Regulation in the article 2.10.32 of the Plan, article 2.10.33 prescribes that technological transformation to the use of advanced technologies in existing industrial areas will be encouraged and it will be obligatory to establish treatment facilities and to take measures to prevent environmental pollution.

Subparagraph b of the article 2.11.3.4 of the Plan describes the technical infrastructure of treatment plans and states that site selection regarding

treatment facilities and integrated waste disposal and storage facilities with disposal and recycling functions should be carried out in accordance with the provisions of the “Regulation on General Principles of Waste Management” by taking the appropriate opinions of the relevant institutions and organizations. Areas such as groundwater feeding areas, excessive groundwater withdrawal areas, agricultural conservation areas, geologically reservable areas, wetlands, protection zones of drinking and utility water resources, and reed-swamp areas can’t be determined for the use of waste disposal and storage facilities. The facilities in question cannot be used for any other purpose.

In the Ergene Basin Protection Action Plan prepared in 2013, 15 targets were determined whereby “construction of joint advanced treatment plants of industrial wastewater” and “construction of advanced biological treatment plants of domestic wastewater by General Directorate of State Hydraulic Works” were counted among these targets.<sup>17</sup>

Within the scope of eliminating industrial pollution, five joint industrial wastewater treatment plants (Ergene-1 Wastewater Treatment Plant, Ergene-2 Wastewater Treatment Plant, Çorlu-1 Wastewater Treatment Plant, Muratlı Wastewater Treatment Plant and Velimeşe Wastewater Treatment Plant) were built for Ergene 1, Ergene 2, Muratlı, Velimeşe, Veliköy, Kapaklı, Yalıboyu and Çorlu 1 OIZs which were gained Rehabilitated OIZs status with the Action Plan. In addition, within the scope of eliminating domestic wastewater pollution, biological wastewater treatment plants were built in Çorlu, Çerkezköy, Muratlı, Malkara, Saray, and Hayrabolu districts of Tekirdağ and a sewerage system and collector line were built in settlements of Tekirdağ with a population of less than 10 thousand.<sup>18</sup>

Within the scope of the Ergene Basin Protection Action Plan, the Deep Sea Discharge Project has been implemented as a complementary project to the construction of joint industrial wastewater treatment plants. With this project, industrial wastewater that is refined in the wastewater treatment plants of OIZs in Tekirdağ is discharged to a depth of 47 meters and 4.5 kilometers off the Marmara Sea through channels and tunnels.<sup>19</sup>

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<sup>17</sup> Kahraman and Özkul, ibid, p. 24.

<sup>18</sup> Muhammet Mutaş and Mustafa Karaduman, Ergene Havzası'nı Kirlilikten Kurtaracak Projede Arıtılmış Sular İlk Kez Denize Deşarj Edildi, Anadolu Ajansı, 14 Kasım 2020.

<sup>19</sup> Mustafa Karaduman and Ömer Ural, Ergene Nehri Temiz Suyu Kavuşacağı Günleri Bekliyor, Anadolu Ajansı, 10 Ekim 2018.

### 1.5. Centers and Sub-Centers

1/100,000-scaled the Thrace Sub-Region Ergene Basin Environmental Plan-Plan Provisions counts determining the centers and sub-centers within the region within the framework of sustainability among the targets and strategies. Accordingly, Plan Provisions determines the types of centers and prominent functions for the districts of Tekirdağ. Within the scope of the plan, 5 types of centers are mentioned: Service Center, Logistics Centers, Rural Centers, Tourism Centers and Industrial Centers. According to the provisions of the plan, Süleymanpaşa and Çorlu emerges as Service Centers; Muratlı emerges as Logistics Centers; Çerkezköy, Kapaklı and Ergene emerges as Industrial Centers; Malkara, Muratlı, Hayrabolu and Saray emerges as Rural Centers, and Sarköy and Marmaraereğlisi emerges as Tourism Centers.

The Plan Provisions determined the prominent functions and center types of the districts of Tekirdağ in line with plan targets and the potentials of the settlements, thus affecting the district-based development of the districts (see Table 1).

**Table 1: Prominent Functions and Center Types on the Basis of Districts**

| Center Type       | District        | Prominent Functions  | Predominant Sector |
|-------------------|-----------------|--|--------------------|
| Service Center    | Süleymanpaşa    | Finance, Commerce, Culture – Tourism, Education, University, Logistics, Port, Technology Development Zone                                    | Service Sector     |
| Service Center    | Çorlu           | Finance, Commerce, Culture - Tourism, Education, University, Logistics, Fair, Free Zone, Manufacturing, Industry Technology Development Zone | Service Sector     |
| Industrial Center | Çerkezköy       | Organized Industrial Zone, Specialized Manufacturing Industry, Free Zone, Technology Development Areas, Finance, Trade                       | Industry Sector    |
| Industrial Center | Kapaklı Ergene  | Organized Industrial Zone, Specialized Manufacturing Industry  | Industry Sector    |
| Rural Center      | Malkara Muratlı | Agricultural Storage and Logistics, R&D and Consultancy Services for   | Agriculture Sector |

|                |                  |   |                |
|----------------|------------------|---|----------------|
|                | Hayrabolu Saray  | Agricultural Production, Product Exchange Agriculture Fair, Trade, Agricultural Industry; OSB, Manufacturing Industry |                |
| Tourism Center | Marmara Ereğlisi | Archaeological Tourism, Tourism Activities, Trade, Energy, Port, Logistics  | Service Sector |
| Tourism Center | Şarköy           | Agro – Eco Tourism, Tourism Activities, Trade, Agricultural Production  | Service Sector |

Source: T.C. Çevre ve Orman Bakanlığı, Trakya Alt Bölgesi Ergene Havzası 1/100.000 ölçekli Revizyon Çevre Düzeni Planı-Plan Açıklama Raporu, Çevre ve Orman Bakanlığı Yayını, Ankara 2009, p.38.

#### 1.6. Limitations on Population Growth Resulting from Industry

1/100,000-scaled the Thrace Sub-Region Ergene Basin Environmental Plan-Plan Provisions includes provisions limiting the sudden spatial expansion in industrial and residential areas and the sudden population growth arising from industry.

After stating that the objectives and strategies of the plan were developed in the direction of “environmental-social and economic sustainable development in the region” and “establishing functional and spatial integration” under provisions of the Planning Goals and Strategies, the article 2.10.26 of the Plan Provisions prescribes that decisions on industry, housing, etc. which will disrupt population balances and plan integrity should not passed.

Therefore, industrial area projects that require a high amount of employment, migration and spatial change will face objections as they contradict with the population projections envisaged in the Plan.

#### 2. Environmental Plans and Court Decisions

Various attempts to set up new industrial areas in Tekirdağ are subject to lawsuits. Plaintiffs base their arguments on environmental plans. In this context, Tekirdağ Organized Industrial Zone and Plastics Organized Industrial Zone Investment Projects, which are the subject of the lawsuit, are examined in the rest of the study.

##### 2.1. Tekirdağ Organized Industrial Zone

The administration of Tekirdağ Organized Industrial Zone (TOIZ) was established in 2013 with the partnership of Tekirdağ Governorship (51%) and Tekirdağ Chamber of Commerce and Industry (49%). In 2014, the Council of Ministers decided to establish Tekirdağ Organized Industrial

Zone on an area of 426 hectares within the borders of Karahisarlı, Nusratlı and Yağcı Villages of Süleymanpaşa district of Tekirdağ.

In the decision process, the non-agricultural use of the 426-hectare area within the borders of the Karahisarlı, Nusratlı and Yağcı Villages of Süleymanpaşa district was allowed for the establishment of TOIZ with the decision of the Ministry of Science, Industry and Technology, dated 17/12/2013 and numbered 4439, and the decision of the Tekirdağ Provincial Soil Conservation Board, dated 12/11/2013 and numbered 44.<sup>20</sup> In the decision of the Council of Ministers numbered 2014/6065 published in the Official Gazette dated May 5, 2014 and numbered 28991, it is stated that “upon the letter of the Ministry of Science, Industry and Technology dated 11/2/2014 and numbered 478, immediate expropriation of the immovables whose parcel numbers are specified in the attached list and located in Tekirdağ Province, Süleymanpaşa District are located within the borders of Tekirdağ Organized Industrial Zone by the Tekirdağ Investment Monitoring and Coordination Presidency on the behalf of TOIZ” was decided by the Council of Ministers on 10/3/2014 in accordance with the article 27 of the Expropriation Law No. 2942.<sup>21</sup> With the TOIZ project, it is aimed that 200 national and international companies will operate in the environmentally sensitive OIZ with the potential of 12 thousand employment, 2 billion TL investment, 1.2 billion dollars export, 1.2 billion dollars import.<sup>22</sup>

Non-governmental organizations appealed to the Tekirdağ Administrative Court for the stay of execution and annulment of the process of Approval of Use for Non-Agricultural Purposes. Also, a lawsuit has been filed by them with the 6th Chamber of the Council of State regarding the stay of execution and annulment of the Council of Ministers Decision No. 2014/6065 on Urgent Expropriation.

The plaintiff party appealed to the Tekirdağ Administrative Court and demanded execution and annulment of the decision of the Ministry of Food, Agriculture and Livestock, dated 14/11/2013 and numbered 3987, to allow the 426 hectares of land to be used for non-agricultural purposes by asserting the following arguments:<sup>23</sup>

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<sup>20</sup> T.C. Tekirdağ İdare Mahkemesi Kararı, Esas No: 2014/591, Tekirdağ 2014.

<sup>21</sup> Resmi Gazete, 5 Mayıs 2014 tarih 28991 sayılı Resmi Gazete’de Yayınlanan 2014/6065 sayılı Bakanlar Kurulu Kararı, Ankara 2014.

<sup>22</sup> Milliyet Gazetesi, TORSAB’da 12 Bin İstihdam Sağlanacaktı, 17 Kasım 2014.

<sup>23</sup> T.C. Tekirdağ İdare Mahkemesi Kararı, ibid.

a) The immovable in dispute is in the nature of absolute and special crop agricultural land, and it is envisaged to be protected as a first-class agricultural land with the provisions of the 1/100,000 and 1/25,000 scaled environmental plans.

b) New industrial areas will not be opened according to the environmental plans. Besides, the reason for the creation of a new industrial area cannot be explained when 4500 hectares of the existing 9000 hectares of planned industrial areas are empty in Tekirdağ.

c) This decision is contrary to the provisions of the Constitution on the protection of soil.

d) The administration has not fulfilled its duties on the protection of absolute agricultural lands brought by the Law No. 5403,

e) The defendant administration allowed the non-agricultural use of the said area although there is no public interest, and alternative field surveys were not carried out while this permission was granted.

f) Implementation of the decision, which will lead to the rapid depletion of agricultural lands, will cause irreparable and impossible damages both at micro level and at macro level through the loss of productive agricultural lands for the concerned farmers who know that their lands will be confiscated by hasty expropriation method,

In the decision of the Tekirdağ Administrative Court dated 18/07/2014 and numbered 2014/591, it is stated that the judges unanimously ruled that the matter in dispute is against the legislation and the law by the following reasons:

1) The average occupancy rate in the existing OIZs is 71.20% which is lower than the 75% OIZ occupancy rate required to allow new industrial investments in existing planned industrial areas in accordance with the provisions of the 1/25,000-scaled EDP. Thus, the necessary 75% boundary condition is not met.

2) There are empty industrial areas in Tekirdağ both in the existing OIZs and in existing planned industrial areas.

3) Allowing the non-agricultural use of an immovable with an area of 426 ha, which has the characteristics of Agricultural Land with First Degree Conservation can provide an advantage of only 35 km at most in terms of transportation costs compared to the existing OIZs. This fact is not possible to cause a public benefit of great importance for the destruction of scarce agricultural lands.

## 2.2. Plastic Industry Collective Workplace Building Cooperative Specialized Organized Industrial Zone Project

Plastic Industry Collective Workplace Building Cooperative Specialized Organized Industrial Zone Project has been developed in an area of 2,743,605.95 m<sup>2</sup> in total, adjacent to the European Free Zone, in the Karamahmet Village of the Ergene District of Tekirdağ. The area belongs to the Plastic Industry Collective Workplace Building Cooperative (the PICWBC). With the completion of the project, it is aimed that 200 production facilities will operate in the OIZ with the potential of 30 thousand employment, an added value of 30 billion TL per year, 15 billion TL investment, and 5 billion TL export. As of 2021, the PICWBC has invested more than 1 billion TL for the Project together with land purchase and other expenses.<sup>24</sup>

With the application made to the Ministry of Environment and Urbanization on 06.12.2011, the PICWBC requested a public interest decision for conversion of 2,743,605.95 m<sup>2</sup> first-class agricultural land to industrial land. Ministry of Environment and Urbanization, Directorate General of Vocational Services made a public interest decision for the land with its decision dated 08.06.2012 and numbered 1210. With the application dated 07.11.2012 made to Tekirdağ Provincial Directorate of Food, Agriculture and Livestock, a non-agricultural use permit was requested in order to establish a Specialized Organized Industrial Zone in the land. The Environmental Impact Assessment (EIA) process regarding Plastic Industry Collective Workplace Building Cooperative Specialized Organized Industrial Zone Project was initiated on 15.07.2013 and it is released to the public on 16.02.2021.

In their petition dated 25.02.2021, Chambers of Turkish Engineers and Architects objected to the EIA process of the Project with the reasons listed below.<sup>25</sup>

1) The planned Project area is a fertile agricultural land where land consolidation work has been done with the investment budget of by the General Directorate of Agricultural Reform. The purpose of land consolidation is to increase the living standards of the rural population through increasing the agricultural production and the productivity of

<sup>24</sup> PAKOP, Projemiz, available at: <<http://pakop.org.tr/Projemiz,s35.html>>, accessed December 12, 2021.

<sup>25</sup> Türk Mühendis ve Mimar Odaları Birliği, TMMOB Tekirdağ Bileşenlerinden Plastikçiler OSB Yatırım Projesi ÇED Sürecine İtiraz, Türk Mühendis ve Mimar Odaları Birliği, 25 Şubat 2021.

agricultural enterprises by preventing land fragmentation and division. Hence, agricultural land consolidation action for agricultural purposes by the public authorities and the decision of the public authorities for conversion of an agricultural land to industrial land is self-contradictory.

2) The planned Project area is a first-class agricultural land that must be strictly protected as per the Soil Conservation and Land Use Law No. 5403. As per the law, these lands have been qualified as “agricultural protected area” since they are declared as “Great Plain Conservation Area”. Only, irrigated agricultural facility can be carried out in these areas.

3) The Article 2.10.29 of 1/100,000-scaled the Thrace Sub-Region Ergene Basin Environmental Plan prescribes that industrial development will be limited to the existing planned industrial areas that are in compliance with the upper scale plan decisions and site demands for new industry investments will be encouraged in the planned empty industrial areas. Thus, according to the provision, new industrial areas cannot be established except for planned industrial areas.

4) The project is also contrary to the 5th, 7th, 8th, 9th and 10th articles of the Prime Ministry Circular named "Ergene Basin Protection Action Plan" numbered 28676 and published on 13 June 2013, which ascertain that Action Plan is sensitive to uncontrolled, irregular, and unplanned new industrialization in the Ergene Basin.

5) The project against the article 2.46 provision of 1/25,000-scaled Tekirdağ Provincial Environmental Plan which states that industry types with high environmental pollution and/or causing environmental destruction shall not be included within the planning area boundary.

6) The amount of water to be used by the facility during the operation phase is not specified in the EIA file. The project is also in violation of the article 3.2.1 provision of 1/25,000-scaled Tekirdağ Provincial Environmental Plan which regulates the “Ground Water Recharge Areas”.

7) Upon the request of the Tekirdağ Governor's Office, a provision was added to the provisions of the 1/25,000-scaled Tekirdağ Provincial Environmental Plan stating that unless the occupancy rate of the existing planned industrial areas exceeds 75%, new industrial areas cannot be opened and construction permits cannot be issued outside these areas. While the occupancy rate is 42% in existing OIZs and 30% in Rehabilitated OIZs, a new non-agricultural area is tried to be created with this Project.

In the decision of the First Tekirdağ Administrative Court dated 01/04/2021 and numbered 2021/122, after stating that it is clear that irreparable and impossible damages will arise due to the fact that agricultural lands will be opened for non-agricultural purposes if the action that is the subject of the

lawsuit continues to be implemented, the judges unanimously ruled that the matter in dispute is against the legislation and the law and hence decided to stay the execution of the case until the end of the case without seeking any security in accordance with the article 27/2 of the Law No. 2577 on Administrative Judgment Procedure.<sup>26</sup>

### **Conclusion and Discussion**

In this study, the impact of environmental plans on the nature and structure of the industry in cities are examined in the case of Tekirdağ city of Turkey. Examination of the environmental plans reveals that the establishment of some industrial sectors in Tekirdağ was prohibited, the previously established ones were made environmentally friendly, scattered industrial facilities were gathered under the roof of the Organized Industrial Zones (OIZ), the creation of new areas outside the determined industrial areas are subject to certain conditions, the prominent functions and center types for the development of the districts in Tekirdağ have been determined, and the sudden spatial expansion in industrial and residential areas and the sudden population growth arising from industry are restricted upon the Environmental Plans came into force in 2009 and the following years.

The study also reviews the impact of environmental plans on court decisions regarding the attempts to set up new industrial areas in Tekirdağ. The court decisions examined in the study display that undertakings to create an industrial area in Tekirdağ must comply with environmental plans. Otherwise, it will lead to loss of time, effort, and money.

The court decisions reveal that either industrialists are not fully aware of the effects of environmental plans or they hope that they can overcome the impacts of environmental plans on the industrial sector.

Examination of court cases disclose that it is particularly important to explain the results of the environmental plans to citizens, especially industrialists. In order to eliminate conflicts and to strengthen the coordination and cooperation among government bodies, industrialists and civil society organizations, environmental plan awareness of the society should be increased. For this end, guidelines and catalogs could be prepared, the results of the environmental plans could be explained in the meetings in the Chambers of Commerce and Industry of Cities, and special units could be formed in the Chambers of Commerce and Industry to explain the impacts of the environmental plans on industrialists.

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<sup>26</sup> T.C. Tekirdağ 1. İdare Mahkemesi Kararı, Esas No: 2021/122, Tekirdağ 2021.

Examination of court cases also reveals that announcement of new industrial areas and their economic impacts leads to hopes among the public. It is hard for them to grasp how projects participated by governmental bodies are rejected by courts. That is why, involvement of government authorities and bodies into industrial area projects which are in conflict with environmental plans should be restrained. Governmental institutions shouldn't encourage industrialists to initiate industrial projects which are contradict with environmental plans and should prevent these efforts at the very beginning.

One of the reasons why industrialists attempt to set up new industrial areas on agricultural lands rather than acquiring empty planned industrial areas is the cost of industrial plots in the planned industrial lands. The cost of industrial plots in the existing OIZs are very high. Thus, industrialists often apply alternative ways to overcome this problem. Holding industrial plots with speculative reasons should be prevented. Time limitations can be imposed as such if the owner doesn't construct the factory within the limited time, the land parcel would be taken away. Providing industrial plots by long term leasing can be another method in order to overcome the cost of industrial plots for industrialists.

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