



The Role and Importance of Landscape Planning in Spatial Planning¹

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¹ This article is produced from PhD thesis of Tuğba ÜSTÜN TOPAL under the supervision of Prof. Dr. Aslı KORKUT, labeled "Ecology-Based Planning Approach For Urban Development Areas: Tekirdağ Example".

Abstract

Planning is the process of making decisions and making choices beforehand in order to reach a target set for the future. Planning evaluates the past and future situations by integrating spatial, natural, social, economic, etc. factors while making decisions for the future. The geographies we live in today have become places where natural resources are consumed excessively, uncontrolled and unplanned development, human scale is exceeded and environmental problems are high. In this direction, ecological approaches should be taken as a basis while making land use decisions. In this direction, the main purpose of landscape planning, which is a process in which plan decisions are made regarding the most rational use of the land by considering ecological factors, is to preserve the existing structure of the natural landscape in order to meet human needs in the best and continuous way. In this study, the effect of landscape planning in reducing the environmental problems that affect our lives more and more seriously with each passing day is questioned and the spatial planning hierarchies and spatial planning structures of Turkey, Denmark, Mexico, Germany, Japan and England are examined. In this context, the place and role of landscape planning in the spatial planning system in Turkey has been questioned. As a result, suggestions were made for the spatial planning hierarchy for Turkey.

Keywords: Spatial planning, ecological planning, landscape planning, landscape architecture.

1. INTRODUCTION

Planning is a process that uses scientific and technical knowledge to think thorough a set of options and reach consensus, and refers to a wide range of systematic activities designed to ensure that desired goals are achieved in the future (Atabay, 2003; Steiner, 2008; Üstündağ and Şengün, 2011; Wheeler, 2013). The common point of the word planning in all professional disciplines is decision making. Indeed, Alipour (1996) defined planning as the whole of decisions about the past, present and future by combining social, economic, political, physical, technical and anthropogenic factors (Çetinkaya and Uzun, 2014). Planning studies are generally macro-plan-scale studies and include a process in which the decisions taken at the upper scale are gradually transferred to the lower scales, and separate plans are made at each scale (Korkut et al., 2010).

According to Botequilha Leitao et al. (2006), physical planning is the provision of the optimal distribution of space usage for a given area (Çetinkaya and Uzun, 2014). With planning, it is aimed to create a livable environment and lifestyle with high social welfare



and to ensure the quality of life. As Peker and Polat (2013) underline, no matter how multidimensionally planning is considered from a spatial point of view, the goal is actually to improve the quality of life. While doing this, the biggest source of inspiration should be nature (Simonds, 1961). In this context, evaluation method of natural and cultural resources is decided. The important thing at this point is; decisions made for planning are compatible with natural environmental conditions, do not cause loss of resources, and have sustainable usage characteristics. Thus, physical planning is a process that has ecological planning logic in a sense and has applicability to all kinds of goals (Turoğlu, 2005; Akay, 2007).

The current zoning legislation that is still in force in Turkey is listed as Constitution of the Republic of Turkey dated 18.10.1982, Turkish Civil Code dated 22.11.2001 numbered 4721, Zoning Law No. 3194 dated 03.05.1985, Zoning Plan, Zoning Regulation, Circulars. (According to Yıldız (2006), Üstündağ and Şengün, 2011).

Although spatial structuring in different countries and in Turkey is in hierarchical order, often with leaks in practice as Simonds (1961) emphasized it is seen that cities have grown indiscriminately and continue to grow. This issue still continues to be on our agenda as a current issue. Most importantly, today's cities are growing without an ecological basis (Korkut et al., 2017). Unfortunately, the lack of decisions and plans with an ecological approach is clearly felt (Başaran, 2018). It is seen that all stakeholders involved in the planning process should face this problem.

In this study, it is aimed to reveal how landscape planning in landscape architecture, which is a professional discipline that makes physical planning on the basis of ecological infrastructure, can be a solution for living spaces that show an uncontrolled and incompatible development with ecological understanding.

2. METHODOLOGY

The study was carried out in three stages: i) the effect of landscape planning in reducing environmental problems was questioned, ii) Turkey and different countries' planning hierarchies and structures related to spatial planning were revealed, iii) the place and role of landscape planning in spatial planning in Turkey were questioned, suggestions for Turkey's planning hierarchy were presented.

3. Landscape Planning and Its Impact on Reducing Environmental Problems

Today, many human-induced environmental problems threaten our world. Global warming and melting of glaciers, poor air and water quality, drought, famine, urban heat island effect, decrease in biodiversity, fossil fuel consumption, deforestation, increasing migration from rural to urban are some of these (Korkut et al., 2017; Yılmaz et al., 2017; Hutchins et al., 2021; Temiz and Sağlık, 2021; Tan et al., 2021). These problems arise from the mismatch between human activities and world actions (Shimizu et al., 2014). In fact, all of the environmental problems we face are related to ecology (Senem and Arıdağ, 2016). Changing land uses, especially for human activities, causes ecological problems (Kurdoğlu et al., 2022). In this context, with the understanding that it has become necessary to control land uses in order to meet the needs of the increasing population, people have begun to find the methods of how to make the best use of natural resources without harming them. However, as human influence on the world grows and the built environment becomes more important, the landscapes we design and manage are increasingly important (Özcan, 2007; Beck, 2013; Küçükali and Atabay, 2013). So that, the negative effects of landscape transformations require the determination of some preventive and protective actions (Degórski, 2015). In this direction, ecological approaches that determine the environmental conditions of the landscape and the interactions of the spaces in the landscape with each other should be taken as a basis in making land use decisions (Demir and Demirel, 2018). In addition, the main purpose of landscape planning, which is a process in which plan decisions are made regarding the most rational use of the land, taking into account ecological factors;



to protect the existing structure of the natural landscape in order to meet human needs in the best and continuous way (Selman, 2006; Korkut et al., 2010; Erol, 2020) and to regulate the use of these resources by making decisions according to the structure of landscape resources while developing plan decisions (Marsh, 2005; Mansuroğlu et al., 2012; Erol, 2020). According to Korkut and Kiper (2021), landscape planning is the planning that includes the creation of natural and cultural landscape values for the future for the sustainable use of cultural, biological and physical resources, the increase of existing values by providing protection-utilization balance, and the implementation of management strategies, plans and projects for the improvement of these values. In the European Landscape Convention, landscape planning is defined as "strong forward-looking action to enhance, restore or create landscapes" (Council of Europe, 2000). Landscape planners and designers also work to ensure the continuity of good conditions (Shimizu et al., 2014).

When landscape planning is evaluated in the urban context, it is based on preserving the ecological balance of the city. In order to preserve the ecological balance, it is important that natural systems enter urban living spaces. Green spaces, which are one of these systems, have many benefits such as providing physical control, providing air pollution control, providing noise and image control, providing climate control to urban living spaces (Önder and Polat, 2002).

At the point where environmental problems come today, the protection, management and planning of areas affected by landscape changes are receiving increasing attention from disciplines closely related to planning issues (Deniz et al., 2006), especially in urban areas, the design approach with nature is gaining importance day by day (Gürbüz and Arıdağ, 2013). In this study, it has been investigated how landscape planning can be an answer to these problems.

4. National and International Physical Planning Hierarchy

4.1. National Spatial Planning Hierarchy

The regulation on zoning issues in Turkey was made with the Zoning Law No. 3194, which was published in the Official Gazette dated 09.05.1985 and numbered 18749. Thus, the spatial planning process began. In this context, the Spatial Plans Construction Regulation, published in the Official Gazette dated 14.06.2014 and numbered 29030, also determines the most important bases in the construction phase of the plans (T.R. Ministry of Environment and Urbanization, 2014). However, changes in the central and local government legislation in the planning system in Turkey (such as Metropolitan Law No. 5216, Law on Municipalities No. 5393, Law on Special Provincial Administration No. 5302) and inclusion of the general law-private law relationship also reveals a legislation other than the Zoning Law (Dede and Şekeroğlu, 2020).

In addition to the Zoning Law No. 3194, which is the main law for zoning plans in Turkey, and the regulations supporting it, there are also special laws according to the characteristics of the planning area. In this context; It is mentioned in Article 4 of the Zoning Law No. 3194, "Provisions of this Law not contrary to special laws shall apply to such places as specified or to be specified by the Law No. 2634 on Tourism Incentives, the Law No. 2863 on Conservation of Cultural and Natural Assets, and the Law No. 2960 on Bosphorus and the Law No. 3030 on Administration of Metropolitan Municipalities provided that the relevant Articles of this Law be complied with, and other special laws". This shows that during the construction of the zoning plan, special laws preceded the Zoning Law No. 3194, which showed the characteristics of general law (Dede and Şekeroğlu, 2020).

The hierarchical order for spatial plans in Turkey is stated in Article 6 of the Spatial Plans Construction Regulation, which came into force in 2014: "...from the upper level to the lower level; Spatial Strategy Plan, Environmental Plan, Master Plan and Implementation Development Plan". (T.R. Ministry of Environment and Urbanization, 2014). However, It

is mentioned in Article 6 of the Zoning Law No. 3194 on spatial planning stages "In spatial strategy plans; the objectives set forth in the development plan and, if any, regional plans, regional development strategies and other strategy documents are taken into account" (Official Gazette of the Republic of Turkey, 1985). Based on all these explanations, the types of plans in spatial planning in Turkey are given in Table 1.

Table 1. Types of plans in spatial planning in Turkey (Korkut and Kiper, 2021)

Planning Level	Plan Type	Scale	Authorized Institution	Legal Basis	
Socio-economic plans	Country	Development Plan	Report	Presidency of Strategy and Budget	1982 Constitution Article 166 / Decree Law No. 641
	Region	Region Plan	Report	T.R. Ministry of Industry And Technology, Development Agencies General Directorate	Zoning Law No. 3194
Spatial plans	Country, Region, Basin	Spatial Strategy Plan	1/250.000-1/500.000 and over	T.R. Ministry of Environment and Urbanization* (General Directorate of Spatial Planning)	Zoning Law No. 3194 and Spatial Plans Construction Regulation No. 29030
	Region, Basin, City	Territorial Plan	1/25.000-1/50.000-1/100.000	T.R. Ministry of Environment and Urbanization* (General Directorate of Spatial Planning)	Zoning Law No. 3194 and Spatial Plans Construction Regulation No. 29030
	City	Master Plan	1/5.000-1/25.000	Municipalities (within administrative boundaries), governorship (out of administrative boundaries), provincial special administrations	Zoning Law No. 3194 and Spatial Plans Construction Regulation No. 29030
	City	Implementation Plan	1/1.000	Municipalities (within administrative boundaries), governorship (out of administrative boundaries), provincial special administrations	Zoning Law No. 3194 and Spatial Plans Construction Regulation No. 29030

*With the Presidential Decree No. 85 published in the Official Gazette dated October 29, 2021 and numbered 31643, the name of the Ministry was changed to the Ministry of Environment, Urbanization and Climate Change (Source: T.R. Ministry of Environment, Urbanization and Climate Change official web page: <https://csb.gov.tr/>).

✓ **Development Plan:**

The Development Plans were prepared by the Ministry of Development by the State Planning Organization, every five years until the eighth plan. The ninth plan was prepared for a period of seven years, and the wording of five years was removed from the names of the following plans. With the Eleventh Development Plan, the authority to prepare the plans was transferred to the Strategy and Budget Presidency, which is affiliated to the Presidency of the Republic of Turkey (T.R. Presidency of the Presidency of Strategy and Budget, 2021). Development plans are prepared in order to eliminate interregional imbalances in many areas such as economic, social, cultural, sectoral, etc. It defines the arrangements that will ensure balanced regional development within the target of the plan years they cover (Üstündağ and Şengün, 2011). It is prepared at the country level and in the form of a report.

✓ **Regional Plan:**

Regional plans determine socio-economic development trends, development potential of settlements, sectoral targets, distribution of activities and infrastructures (Republic of Turkey Official Gazette, 1985). It includes the strategies and actions that need to be implemented in order to achieve these goals. It is prepared at the regional level. It is upper scale and is the plan that is located between the national plans and the environmental plans in the hierarchy of plans (Eastern Black Sea Development Agency, 2020; Thrace Development Agency, 2020). They are prepared at the regional scale and at the scales of 1/100.000-1/250.000 (Yücel and Çolakkadioğlu, 2017).



✓ **Spatial Strategy Plan:**

It can be done throughout the country and in regions deemed necessary. Relates the country's development policies and regional development strategies at the spatial level. By evaluating the regional plans, it determines spatial strategies on issues such as the acquisition of underground and above-ground resources to the economy; the protection and development of natural, historical and cultural values, settlements, and the transportation system. It is prepared using schematic and graphic language on 1/250,000, 1/500,000 or higher scale maps (T.R. Ministry of Environment and Urbanization, 2014).

Studies for the preparation of the said plan are carried out by the Ministry of Environment and Urbanization (T.R. Ministry of Environment and Urbanization, 2019), as of 2020, there is no completed plan yet (Dede and Şekeroğlu, 2020).

✓ **Territorial Plan:**

If any, it is prepared in accordance with the goals and strategy decisions of spatial strategy plans. It shows basic geographic data such as forest, stream, lake and farmland. It determines the general land use decisions regarding sectors such as urban and rural settlements, development areas, industry, agriculture, tourism, transportation and energy. It provides the relations between settlement and sectors, and the balance of protection-use. It can be 1/50,000 or 1/100,000 scaled. It can be done at the regional, basin or provincial level. It is a whole with plan notes and report (T.R. Ministry of Environment and Urbanization, 2014).

✓ **Master Plan:**

It is drawn on the existing maps in accordance with the regional plans, if any, and the environmental plan, if any, with the cadastral situation, if any. It shows the general usage patterns of the land pieces, the development direction and size of the settlement areas, population densities and thresholds, transportation systems. It is the basis for the preparation of implementation zoning plans. It is a whole with plan notes and report (Republic of Turkey Official Gazette, 1985).

Master plans examine the status of individual land uses and their interaction with each other. It sets forth the set of rules determining, guiding and limiting the site selection and development decisions within the framework of the relevant legislation. It is prepared in accordance with the drawing norms, urban, social and technical infrastructure standards determined in the Regulation showing the Principles of Preparation of Zoning Plans dated 2/11/1985. It must comply with the principles of the Type Contract and Technical Conditions issued by the Banks of Provinces (Ersoy, 2012). It is prepared in every scale between 1/5.000 and 1/25.000 in metropolitan municipalities (T.R. Ministry of Environment and Urbanization, 2014).

✓ **Implementation Plan:**

It is prepared in accordance with the principles and fundamentals of the master plan. It is the plan that shows the decisions regarding the construction and implementation, the implementation stages and other information in detail such as the building blocks, their uses, the building order, the building height, the floor area coefficient, the floor area, the number of floors or the precedent, the building approach distance, the front line, etc. It is prepared in 1/1.000 scale. It is a whole with plan notes and detailed report (T.R. Ministry of Environment and Urbanization, 2014). Other plan types defined in the Spatial Plans Construction Regulation are; integrated coastal zone plan, conservation development plan, transportation master plan, long-term development plan (T.R. Ministry of Environment and Urbanization, 2014). In addition to these plans, as stated above, there are also special laws and special environmental protection plans, tourism development plans and national park development plans (Kaya and Uzun, 2019). There are also revision zoning plan, additional zoning plan, local zoning plan, which are the plans that bring changes in the main plan (Uslu, 2017). Within the scope of the Spatial Planning



General Directorate of the Ministry of Environment and Urbanization, for planning; activities such as preparing village settlement plans and coastal area and filling area development plans for coastal areas and preparation of urban design guides are also carried out within the scope of rural area studies. These types of plans are described below:

Integrated Coastal Zone Plan: It deals with the coasts with a comprehensively integrated approach together with the interaction space. It ensures the harmony between the functions and activities in the coastal areas and the targets for the coastal areas. It looks out for the principle of sustainable development. It includes the infrastructure facilities required to be built on the coast related to transportation types. It includes the spatial target, strategy and action proposals and the management plan. It is prepared in cooperation with relevant institutions and organizations. It is a whole with the plan sheet and the planning report. 1/25,000 or 1/50,000 scaled (T.R. Ministry of Environment and Urbanization, 2014).

Conservation Zoning Plan: It is the Master and Implementation Development Plan prepared in accordance with the Law on Conservation of Cultural and Natural Assets dated 21/7/1983 and numbered 2863. While making plans, studies such as the historical environment and traditional texture, cultural and natural heritage, social and economic structure, property status, urban, social and technical infrastructure, building and street texture, transportation-circulation system, organization style, etc. are made by associating them with the whole city (T.R. Ministry of Environment and Urbanization, 2014). 1/1,000 or 1/5,000 scaled (T.R. Ministry of Environment and Urbanization, 2014). They are prepared within the scope of Natural Protected Areas, Areas of Cultural Heritage to be Protected, Natural assets and natural sites and areas where historical, archaeological, urban and other protection statuses overlap (Kılınc, 2018).

Transportation Master Plan: Taking into account the transportation needs and demands according to the spatial, social and economic characteristics of the city, it determines the necessary details of the transportation system of the city and its immediate surroundings, transportation network, standards and capacities, land, sea and air transportation and their integration with each other, transfer points belonging to these species, storage and transfer centers, commercial freight corridors and public transport routes, parking lot, bicycle and pedestrian paths, accessibility and traffic issues. It can be prepared in coordination with the upper and lower level plans of the city. It is a whole with its plan sheet and report (T.R. Ministry of Environment and Urbanization, 2014).

Long Term Development Plan: It is an ecosystem approach plan based on zoning, in which technical, social, economic, action and management models are determined in order to protect, develop and maintain the resource values of protected areas such as national parks, nature parks, nature conservation areas, wetlands (T.R. Ministry of Environment and Urbanization, 2014).

Special Environmental Protection Plan: They are prepared in order to secure areas that are sensitive to environmental pollution and degradation, which are of ecological importance on a country and world scale, and to ensure that natural beauties reach future generations. It is prepared by private institutions affiliated to the Ministry of Environment. 1/1,000 or 1/5,000 scaled (According to Altıntaş (2007), Üstündağ and Şengün, 2011). Its scope consists of Environmental Plans, Master and Implementation Plans (Kılınc, 2018).

Tourism Purpose Zoning Plan: They are plans that describe places or sections of importance for tourism movements and activities in order to protect, use regions with high historical and cultural values and/or high tourism potential, Culture and Tourism Conservation and Development Regions, to ensure sectoral development and planned development. (Üstündağ and Şengün 2011).



National Park Development Plan: It is prepared to provide the protection and usage purposes of the places determined as national parks. It is made by the municipalities by taking the opinion of the Ministry of Tourism. It is 1/1.000 or 1/5.000 scaled (Üstündağ and Şengün, 2011).

Revision Zoning Plan: It is the plan obtained as a result of the renewal of all or part of the plan in accordance with the plan making techniques in cases where the Master and Implementation Development Plans do not meet the needs and there are problems in implementation (Akkaya and Akkaya, 2014).

The need for a revision zoning plan arises when there is a denser construction than envisaged in a certain area of a residential area, in case a residential unit reaches the population projection predicted before the current zoning plan, or in case of intensive zoning plan amendments in the whole or part of the city center. There is no scale limitation. Generally, 1/1.000 scale is used (Üstündağ and Şengün, 2011).

Additional Zoning Plan: It is prepared in cases where the current plan does not meet the needs. It provides continuity, integrity and harmony with the general land use decisions of the current plan (T.R. Ministry of Culture and Tourism, 2003).

Local Zoning Plan: It is the plan prepared on the areas outside the borders of the existing Zoning Plan and not integrating with this plan, and which has provided the social and technical infrastructure needs within its own structure (T.R. Ministry of Public Works and Settlement, 1999).

Village Settlement Plan: It is a subdivision plan apart from the Zoning Law No. 3194 and the related regulations. Regarding the Village Settlement Plan in the Additional Article 10 of the Law No. 3367; "The commission prepares the village settlement plan according to the housing and general needs of the village, taking into account the current and development status of the village. On this plan, the Ministry of Agriculture, Forestry and Rural Affairs carries out the works that determine the location of the parcels or have them done, without being subject to the provisions of the existing Zoning Law and the regulation on this subject." clause is included. Legislation regarding these plans is included in additional articles 9, 10, 11, 12, 13 and 14 of Law No. 3367 and Village Law No. 442 (T.R. Ministry of Environment and Urbanization, 2021).

Coastal Area and Filling Area Development Plans: Coastal and filling areas are areas of special quality, where sustainable development and use for public benefit should be taken as a basis, provided that the protection-use balance is ensured. Regarding the planning of these areas, while Article 43 of the Constitution foresees the use of coastlines and their successor coastlines, it also stipulates that this use must be provided within the framework of protection and public interest (T.R. Ministry of Environment and Urbanization, 2021).

4.2. International Spatial Planning Hierarchy Examples

4.2.1. Spatial planning hierarchy in Denmark

The Danish planning system is based on three basic principles: decentralization, framework control and public participation (Metternicht, 2018). So much so that the participation of the public was expanded in The Town Planning Act, which came into force in 1925. Subsequent laws, the National and Regional Planning Acts (1973) and the Local Planning Act (1975), held planning authorities responsible for involving the public in regional and local planning. (Kjaersdam, 1988). The Planning Act came into effect in 1992. The law is based on the administrative and planning reforms adopted in 1970 and 1975 respectively (Enemark, 2002).

Denmark has a simple and clear spatial planning system. The planning system is divided into national, regional and local levels (Enemark, 2002; Busck et al., 2009). The goals and content at each administrative level are different. However, the planning decisions at



the lower scale should not conflict with the decisions at the upper scale. Municipal councils, at the municipal and local levels, are responsible for comprehensive land use regulation for property owners through directives. Regional councils prepare strategic plans for spatial development in each region (Enemark, 2002; Metternicht, 2018). Rural areas cover about 90 percent of the country. It is forbidden to change land use in these areas, except for agriculture and forestry. In some cases, it is subject to special permission according to the zoning regulations (Enemark, 2002). The spatial planning hierarchy in Denmark is given in Table 2.

Table 2. The spatial planning hierarchy in Denmark (Adapted from Enemark, 2002; Galland, 2014; Metternicht, 2018)

Level	Plan	Status	Purpose and use	Scale
National	National Planning Perspective	The perspective serves the function of a as a "reference framework" presenting strategic goals, actions and international relations.	Policies, maps and general guidelines	-
	National Planning Reports	Legal reports that provide general guidance and policies. It is mandatory preparation after every national election.	It sets current national planning policies and guides regional and local planning authorities. Their rationale, scope and development orientation have varied greatly over the past four decades.	-
	National Plan Directives	They are legal guidelines that provide binding regulations on specific matters of national interest.	It determines the legal provisions (natural gas pipeline, electricity transmission line) on certain issues of national interest.	-
Regional	Regional Plans	They are legal reports prepared every four years.	Legislation identifies interests and issues arising from politically accepted decisions in the form of action plans, sector plans, national planning decisions and agreements between public authorities.	1/100.000-1/200.000
	Regional spatial development plans	They are advisory, strategic development plans that define "desired future spatial development" for each administrative region. It is prepared every four years.	They are portrayed as umbrella tools that inspire growth and development initiatives at the municipal level.	-
Local	Municipal plans	They are legal plans that provide land use regulation. They are plans that are subject to mandatory revision every four years, covering the entire area of the municipality with a 12-year view.	It sets general and specific policies and regulations for land use in urban and rural areas. It is the main political tool for development control at the municipal level.	1/10.000-1/50.000
	Local /neighbourhood plans	They are legal plans that provide binding regulations for local/neighborhood areas. Mandatory preparation before the implementation of development proposals.	It sets out detailed regulations for future land use, including written statements and maps.	1/500-1/5.000

4.2.2. Spatial planning hierarchy in Mexico

The formalization by law of the management of land use in Mexico is based on the 1917 Constitution. Accordingly, the 1917 Constitution was a public document that introduced the concept of the plan on a national scale (Edelman and Allor, 2018; Beraud Macías et al., 2018).

Urban development planning begins with General Law on Human Settlements, which was published in Mexico in 1976 to regulate land use at state, municipal and urban level (Rojas-Caldelas et al., 2015). Planning policies are determined by the General Law of Ecological Balance and Environmental Protection (LGEEPA) and the General Human Settlements Law General Human Settlements Law. The General Law of Ecological Balance and Environmental Protection requires the creation of ecological zoning plans. There are four types of ecological zoning plans: (1) a national general ecological zoning plan; (2) regional ecological zoning plans; (3) local ecological zoning plans; and (4) marine ecological zoning plans (Metternicht, 2018).

The Secretariat of Environment and Natural Resources (Spanish initials SEMARNAT - Sistema Nacional de Planeación Democrática) - is the agency responsible for the

development of the overall national ecological development plan, as well as multi-sectoral coordination within the framework of the National Democratic Planning System. Urban land use planning is the responsibility of the Municipal Secretariat of Sustainable Development (Spanish initials SEDESO) (Metternicht, 2018; Soria et al., 2020). The spatial planning hierarchy in Mexico is given in Table 3.

Table 3. The spatial planning hierarchy in Mexico (Adapted from Vazquez and Flores, 2022)

Framework	Plan	Legal basis
National Plan	2019-2024 period plan	Constitution of Mexico of 1917
Federal planning	-	Federal law of urban settlements
State planning	State plan of urban development	Law of urban development
Municipal planning	Municipal plan of urban development	Municipal law of urban development

4.2.3. Spatial planning hierarchy in Germany

The three levels of federal structure of the state (federal, state and local government) are decisive in the spatial planning system in Germany. All three levels of government have widely differentiated levels of planning in terms of competence and distribution of functions (Pahl-Weber et al., 2006; Gstach et al., 2014). While they differ greatly legally and organizationally, they are linked by participation, coordination and cohesion, as well as mutual feedback (Pahl-Weber et al., 2006). The Federal Spatial Planning Act Raumordnungsgesetz, ROG) sets the principles for spatial planning procedures (Bartel and Janssen, 2016).

Spatial planning in Germany is divided into spatial master planning and sectoral planning. Sectoral planning includes traffic planning, environmental planning and water management. Spatial master planning has national, regional, and urban planning levels (Gstach et al., 2014). In Germany, all the states make detailed statewide plans. The form and rules of plans differ between states. However, each state must also establish environmental protection rules. In addition, district plans must comply with the regulations made in the Federal Planning Act. (Kayıkçı, 2003). Spatial planning hierarchy in Germany is given in Table 4.

Table 4. The spatial planning hierarchy in Germany (Adapted from Pahl-Weber and Henckel, 2008)

Local planning						
Level	Plan type	Content of plan	Legal basis	Authorized institution	Legal impact	Scale
Urban land- use plan	Binding land-use plan	It includes regulations for urban development and order in the form of legally binding definitions for specific parts of municipal land.	Federal Building Code, Utilisation Ordinance and Plan Notation Ordinance	Municipal council	It is legally binding on everyone and is the legal basis for building projects and issuing building permits.	1/500-1/1.000
	Preparatory land-use plan	It basically describes the types of land use envisaged for the entire municipal area in accordance with the intended urban development.	Federal Building Code, Land Utilisation Ordinance and Plan Notation Ordinance	Municipal council	It has a binding effect on all planning authorities.	1/10.000
Supralocal spatial planning						



Level	Plan type	Content of plan	Legal basis	Authorized institution	Legal impact	Scale
Regional planning	Regional plan, national spatial structure plans, territorial development plan	It creates a crucial link between the development perspectives of the state and certain local decisions in the context of urban land use planning.	Spatial planning act and state planning act	State board or county council	It has a binding effect on all planning authorities.	1/25.000-1/100.000
State spatial planning	State development plan, state spatial planning programme, state development programme	It contains explanations for the desired spatial and structural development for the state's territory. The plan is comprehensive, statewide, and covers the objectives of spatial planning.	Spatial planning act and state planning act	State board or state government	It has a binding effect on all planning authorities.	1/50.000
Federal spatial planning	Models for spatial development and principles of spatial planning	It contains principles and guidelines for spatial planning and guiding principles for spatial development.	State planning act	Conference of Ministers for Spatial Planning	It has a binding effect on all planning authorities.	-

Landscape planning for an ecologically based district organization has been developed most consistently in Germany (Rudenko et al., 2015). Germany is a good example of integrating ecological planning and landscape plans into the spatial planning hierarchy and there is much to learn from German experience (Makhzoumi and Pungetti, 1999; Shimizu et al., 2014; Erol, 2017). (Table 5).

Table 5. Scope of landscape development with urban/state development in Germany (Adapted from Gruehn, 2006)

Urban / State Development	Landscape Development	Scale
Regional Policy / Strategy Plan	Landscape Programme	1/75.000-1/200.000
Regional Plan	Landscape Framework Plan	1/25.000-1/50.000
Comprehensive / Structure Plan	Landscape Plan	1/5.000-1/10.000
Zoning / Local Development Plan	Green Structures Plan	1/1.000-1/5.000

4.2.4. The spatial planning hierarchy in Japan

For the first time, Japan adopted a new urban planning system in 1919 (Sorensen, 2005). The City Planning Law, which came into force later in 1968, divides urban lands into two types of planning zones: urbanization promotion zone and urbanization control zone. Urban land uses were managed with the National Land Use Planning Law in 1974 (Hebbert, 1986; Saizen, et al., 2006). With this law, a hierarchical order was established between the plans. Thus, a land use plan was prepared that aims to use the national territory comprehensively and systematically. With this law, the planning process is generally carried out in three stages: national, regional and local (According to Anonymous (2006), Erdođan, 2017). Recent changes have been with the approval of the Soil Pollution Measure Act and the Special Act for City Restoration in 2002 and the Landscape Act in 2004 (OECD, 2017).



At the national level, two plans provide strategic direction. These are the National Spatial Strategy Plan, which provides general principles on national spatial structure, land use, environmental protection, sustainable use of resources and disaster prevention, and the National Land Use Plan, which explains the necessary measures for land use.

The National Land Agency, established in 1974, prepares National Land Use Plans. Based on this plan, 1:50.000 scale Land Use Basic Plans are prepared (Hebbert, 1986; Tominaga, 2011; OECD, 2017). The Prefectural Planning sets out five regions in each prefecture. These are an agricultural region where agriculture should be promoted by the Agricultural Incentive Zones Act of 1969 (Saizen et al., 2006), a forest region that supports the forest industry or maintains and develops its various functions, a natural park region with good natural scenery that needs to be protected, and nature conservation area. These areas are controlled by the City Planning Act, the Forest Act, the Agricultural Promotion Areas Act, the Nature Park Act and the Nature Conservation Act (Hebbert, 1986; Tominaga, 2011; OECD, 2017). The spatial planning hierarchy in Japan is given in Table 6.

Table 6. The spatial planning hierarchy in Japan (Adapted from OECD, 2017)

Level	Plan	Purpose and use	Scale
National	National Spatial Strategy Plan	Comprehensive plan to promote the maintenance and protection of national land.	-
	National Land-use Plan	They are long-term strategic guidelines for the use and development of national land.	-
Regional	Basic Land-Use Plan	It contains the land use instructions and strategies for the province in general (sectoral plans such as national forestry plan, prefectural forestry plan, national park plans, improvement plans of agricultural areas are prepared accordingly)	-
	Master Plans of City Planning Areas	It is a master plan guide that provides a provincial level view for the future direction of urban planning.	1/10.000-1/30.000
	City Plans of Prefectures	They are zoning plans for specific purposes. Indicates areas of control where improvement is supported or constrained.	1/10.000-1/50.000
Municipal	Municipal Master Plans	It is the basic directive for urban planning at the municipal level.	1/25.000-1/50.000
	City Plans of Municipalities	Shows detailed zoning regulations for public spaces and individual buildings.	1/1.000-1/2.500
	Landscape Plans	Establishes restrictions on land use to protect landscapes.	1/1.000-1/2.500
	Compact City Plans Plans for Urban Renaissance Areas	Suggests changes to settlement patterns. Policies for the international competitiveness of cities.	1/1.000-1/2.500 1/1.000-1/2.500

4.2.5. The spatial planning hierarchy in England

Modern city and country planning in Great Britain emerged with the Town and Country Planning Act, which came into force in 1947 and remained virtually unchanged until 1968 (Morrison, 1978; Cirianni et al., 2013). According to Sheail (2002), the planning system has never been an all-encompassing, unitary system. The laws are referred to only as "Planning" Acts, not "Town and Country Planning" Acts. Therefore, the modern planning system is expressed as "landscape-friendly" (Fairclough, 2010). The general structure of the English planning system consists of National Planning Policy Framework, Metropolitan Plan, Local Authority Plan and Neighborhood Plan (Sagoe, 2018).

The main Planning Laws currently in force in the England: the Town and Country Planning Act (1990), which reinforces previous city and country planning legislation and sets out how development is regulated, the Planning and Compulsory Purchase Act (2004), which amends the application of planning laws to Royal land, compulsory purchase The Planning Act (2008), which sets the framework for the planning process for community-nationally important infrastructure projects and provides for the community infrastructure tax, and

the Localism Act (2011), which provides the legal framework for neighborhood planning powers and cooperation with local authorities (Winter et al., 2016). At the regional level, there is no regional strategic plan in the parts of England outside of London. Housing and planning decision-making powers are delegated to local councils. In areas outside of London, a strategic plan will be made at the local level, where Local Planning Authorities are expected to address strategic issues through the new "duty to co-operate" set out in the 2011 Localism Act. In local planning, the local authority decides on strategic priorities for the area (settlement and economic development, transport, waste, energy, telecommunications, water supply and water quality, health, safety, community, infrastructure, etc.). These strategic priorities are contained in the Local Development Documents (Cirianni et al., 2013). The spatial planning hierarchy in England is given in Table 7.

Table 7. The spatial planning hierarchy in England (Adapted from Hacking and Flynn, 2018)

Level	Plans
Central Government	National Planning Policy Framework
Nations & Regions Government	National & Regional Social & Economic Spending Plans
	National & Regional Environmental Protection Plans
	Local Enterprise Partnership (LEP) Plans
County - / City Level Government	Urban Social & Economic Spending Plans
	Urban Environmental Protection Plans
	Local Development Frameworks (LDFs)
Town - / Village Level Government	Area Action Plans
	Neighbourhood Planning
	Site Development Control

5. DISCUSSION AND CONCLUSION

In this study, the place and role of landscape planning and landscape plans in spatial planning have been questioned, and spatial planning systems of different countries have been examined in this direction. When we look at the spatial planning system in Turkey, it is seen that it is designed in a way that goes down to the national, regional and urban planning scales, respectively. The extent to which landscape planning is integrated into this structuring is an issue that is frequently brought up and discussed by the planning profession disciplines. When we look at the countries whose spatial planning hierarchies are examined above, it is understood that these countries are trying to integrate landscape and landscape data at every scale. However, as (Cengiz et al., 2017) states, it is known that in Germany, France, Italy, Spain and Portugal, these countries have established a balance for the use of protection and internalized the concept of protection in a real sense. On the other hand, as (Uzun, 2017) reported, National Landscape Strategy Documents were prepared in Ireland and Hungary. There are landscape atlas of France, local atlases of Denmark, and national atlases in France, England, Norway and Spain. All this shows us that these countries integrate landscape data into their planning stages through landscape plans and strategies. Below are explanations about the place of the landscape plan in the spatial planning hierarchy. In Turkey, however, landscape plan is not included in the legal legislation within the scope of spatial planning hierarchy. Various researchers have developed different predictions in associating the ecological approach-oriented landscape plan with Turkey's spatial planning process. One of these researchers, Uzun et al. (2012) suggested the preparation of national, regional and local landscape plans, starting from the preparation stage of development plans, regarding the integration of landscape plans. Yücel et al. (2013) suggested replacing the Territorial Plan with 1/10,000 and 1/50,000 scaled landscape plans. According to Yücel and Çolakkadıoğlu (2017), the Landscape Plan is similar to the Territorial Plan. However, according to Yılmaz (2010), although the goal of "protecting natural, historical and cultural values and ecological balance" is included in the Territorial Plan, the basic approaches that will enable reaching this goal in the urbanization process and that take



into account the rural environment do not take place as a whole (Korkut and Kiper, 2021). In this context, other suggestions on the subject are as follows:

- The main goal of physical planning studies is to create sustainable living spaces. For this, as stated by Başaran (2018), multi-disciplinary work should be carried out to realize regional planning and city planning, and in this context, the legal/administrative framework should be revised. Here, within the scope of multi-disciplinary studies, as Kılınc (2018) emphasizes, professionals from disciplines who take an active role in physical planning, consisting of city and regional planners and landscape architects, share the same opinion. Accordingly, as the members of the profession working in physical planning say with a common opinion, it is necessary to establish the legal base of landscape planning and to develop legislation for landscape planning in this direction.
- As Selman (2006) states, in fact, the status of landscape as a spatial policy issue is determined by the European Landscape Convention. In this direction, in fact, Turkey, as a party to the European Landscape Convention, is responsible for establishing national landscape policies. As Çetinkaya et al., (2010), Altuntaş and Ortaçesme (2017), Kaplan (2017), Kılınc (2018) have stated, the convention is a legal mechanism for the formation of a national landscape policy/strategy. Turkey is required to determine landscape policies at the national level in accordance with the sanctions of the European Landscape Convention to which it is a party.
- The fact that the production and implementation of landscape policies in Turkey is so limited is due to the inability to understand the content of the concept of landscape in our country and the inability to internalize the profession of landscape architecture. The relations established with the professional discipline of landscape architecture are, in Kaplan's (2017), "superficial relations". This causes the principles of landscape management and protection not to be achieved, and causes problems especially in landscape protection. So much so that the concept of landscape was included only twice in the Spatial Plans Construction Regulation, although it is thought-provoking, it is an important problem (see T.R. Ministry of Environment and Urbanization, 2014). The concept of landscape should be included in laws and regulations regarding physical planning.
- It has been observed that National & Regional Environmental Protection Plans at Nations & Regions Government level in England, National Land Use Plan at National level in Japan, and landscape programs and plans at every scale from regional scale to local scale in Germany. Indeed, for the example of Germany, Wende et al. (2020) argues that the landscape plan is one of the most important nature conservation and landscape development tools in Germany. In the example of Mexico, 4 types of ecological zoning plans are prepared at different scales by integrating ecological planning into spatial planning. As seen in these examples, it is necessary to prepare landscape programs and plans at the national level for Turkey, to integrate landscape plans into national planning legislation, to define landscape plans as a physical plan level, and to form a base for these plans up to the local scale.
- As mentioned above, countries with strong development in planning have national and/or local landscape atlases. Although there are landscape atlas studies in our country, it should be prepared for the whole country by ensuring its continuity and preparing it on a regional/provincial/local basis.
- Establishing an information system for landscape data used in planning and creating a national database will provide convenience for planning. In addition, landscape data should be integrated into plans and plan notes at all levels.
- It is also necessary to determine which data is needed at what scale regarding the landscape data used in the plans and by whom (which institution, organization or department) this data will be produced. At the same time, as Demiroğlu (2016), Karadağ et al. (2022) stated, the data should be prepared with sufficient details, the accuracy of the data should be analyzed at regular

intervals, international standards should be used in data representations, the data should be easy to obtain and the data should be suitable for use at any scale. In this context, it is necessary to establish a legal legislation on how landscape data should be used both for the data production process and for the plans.

- In Turkey, some ministries have databases with data on planning. However, there may be differences between institutions in the same data. This can sometimes cause problems such as the data being unsuitable for use in planning. In this context, as stated above, there is a need for a common language unity and coordinated work for the data.
- It is necessary to prevent the emergence of contradictory decisions by avoiding the confusion of authority of the authorized institutions and organizations at the plan levels. In this context, information and opinions should be shared between relevant institutions and organizations in the preparation of plans, an effective inter-institutional operational plan should be established and these institutions should work in coordination with each other.
- Another issue is to raise social awareness about planning. Raising public awareness and “ensuring public participation in planning”, as seen in the Danish example, should be made one of the principles in the Turkish planning system. As a matter of fact, as it has become a necessity for today's world to include ecological approaches in the planning system, ecological planning approaches are gaining more and more importance. In this direction, ensuring the participation of the public in planning is quite necessary as one of the most important aspects that distinguishes ecological planning from traditional planning.

As a result, not only the physical structure of the living spaces, but also the social, economic and cultural structure of the living spaces created by the land use decisions made by the planning units and the plans prepared for the city are determined. For this reason, it is of great importance which factors are taken into account when making these decisions. In this context, ecological approaches that are sensitive to nature in making land use decisions aim to meet the needs that arise as cities grow, by taking into account the sustainability of natural resources. In order for land use decisions to be made correctly, areas should be handled in detail in terms of each type of use and sector. In this context, landscape plans are the plans obtained from the synthesis of many plans in the sectoral sense. In this direction, it is necessary to prepare landscape plans, which are put forward in line with ecology-based studies. Making these plans is absolutely necessary in terms of ensuring urban sustainability. Landscape architects should take an active role in the preparation of the plans for the use of the land, as professionals who know the ecological infrastructure well and make physical planning.

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