Preparation Of Landscape Plan Proposal-The Case Of Adana City

Peyzaj Planı Önerisinin Hazırlanması; Adana Örneği

Asuman Aysu Kapan[1] (iD),Nuriye Say[2] (iD)

ÖZ

Bu araştırmanın amacı, ülkemizdeki mekânsal planlama sürecinde yer almayan peyzaj planının planlama sürecine entegrasyonu olanaklarının *değerlendirilebilmesi için örnek bir peyzaj planının hazırlanmasıdır. Örnek çalışma için seçilen alan, Adana ilinin Yüreğir, Seyhan, Sarıçam ve Çukurova merkez ilçelerini kapsamaktadır. Ülkemizde yasal ve yönetsel çerçeve kapsamında birden fazla yetki ve sorumlu olması, kurumlar arası koordinasyon ve işbirliğinin olmaması, geleneksel planlama türünün devam etmesi gibi mekânsal planlama sisteminin değişimini gerektiren darboğazlar bulunmaktadır. Araştırma alanına ait elde edilen bulguların uygulamaya aktarılması olanakları çerçevesinde, ülkemizdeki mevcut mekânsal planlama süreci ve bu süreçte karşılaşılan darboğazların belirlenmesi hedeflenmiştir. İmar planlarına altlık oluşturacak nitelikte olması hedeflenen bu planın hazırlanması aşamalarında, ilk olarak alanın doğal peyzaj envanteri ve arazi örtüsü incelenmiş, elde edilen veriler ışığında yürütülen peyzaj karakter analizi sonucu 1935 adet farklı peyzaj karakter tipi tespit edilmiştir. Kentsel, kırsal ve doğal peyzaj ögelerine sahip çalışma alanında, peyzaj karakter tipleri, peyzaj desenleri ve sörvey çalışmalarına bağlı olarak 25 adet peyzaj karakter alanı saptanmış ve peyzaj veri katalogları hazırlanmıştır. Sonuç olarak, Mekânsal planlama pratiğinde karşılaşılan sorunların çözümünde, ekolojik verilerin korunması temelli alan kullanım kararlarının üretilmesi amacıyla, örnek bir peyzaj planı önerisi hazırlanmıştır.*

Anahtar Kelimeler: Peyzaj Planı, Peyzaj Karakter Analizi, Mekânsal Planlama, Adana

ABSTRACT

The aim of this study is to prepare a sample landscape plan in order to evaluate the possibilities of integrating a landscape plan that is not involved in the spatial planning process in our country into the planning process. The area chosen for the case study covers the central districts of Adana province, Yüreğir, Seyhan, Sarıçam and Çukurova. In our country, there are bottlenecks that require the change of the spatial planning system, such as having more than one authority and responsibility within the legal and administrative framework, lack of coordination and cooperation between institutions, and the continuation of the traditional type of planning. Within the scope of the possibilities of transferring the findings of the research field into practice, it is aimed to determine the current spatial planning process in our country and the bottlenecks encountered in this process. At the preparation stages of this plan, which is intended to be a bedplate for the zoning plans, the natural landscape inventory and land cover of the area have been examined firstly, and 1935 different landscape character types have been determined as a result of the landscape character analysis conducted in the light of the obtained data. In the research area with urban, rural and natural landscape elements, 25 landscape character areas have been determined and landscape data catalogs have been prepared based on landscape character types, landscape patterns and survey studies. As a result, in the solving of the problems encountered in spatial planning practice, a sample landscape plan proposal has been prepared in order to produce land use decisions based on ecological data protection.

Keywords: Landscape Plan, Landscape Character Analysis, Spatial Planning, Adana

[1] **Corresponding Author:** Iskenderun Teknik University, Department of Landscape Architecture, asuman.aysu@iste.edu.tr, 0000-0002-1225-8362

[2] Cukurova University, Department of Landscape Architecture, nursay@cu.edu.tr, 0000-0003-2556-2002

INTRODUCTION

Landscape is the technical expression of a dynamic and continuous space in which human-environment interaction is evident, the perception of reality can change, the boundaries can be determined (Say, 2017).

Studies for landscape planning date back to the 1950s. It is possible to evaluate planning activities under the main headings of socio-economic planning and physical planning, depending on the basic components of society, environment and economy (Davidoff & Reiner, 1962; Ersoy, 2007). Physical planning includes planning of spaces in different scales and scopes. Landscape planning, which is evaluated in physical planning; It is a planning process in which the natural and cultural elements that make up the landscape are evaluated as a whole, based on the protection of ecological factors, and involving land use decisions (Lyndon, 1968; Steiner, 2012). Landscape plans prepared at the end of this process, in which biotic and abiotic factors are taken into account, are considered as one of the most basic tools for comprehensive nature conservation and local landscape policies (Krönert et al., 2001; Wende et al, 2012). In this context, landscape planning it serves as a bridge between the studies carried out for the sustainable use of natural resources at national, regional and local scale, and natural sciences, engineering and arts (Karadeniz et al, 2016). Studies on landscape planning date back to the 1950s. At that time, studies were carried out based on the overlapping of maps with spatial data, which is the basis for the spatial planning techniques used today. (Hills, 1955; Lewis, 1964; McHarg & Mumford, 1969). With the formation of a global environmental awareness in the 1970s, ecological-based planning studies have also developed both technically and in content (Buchwald & Engelhart, 1968; Dansereau, 1975; Kiemstedt, 1975).The first landscape planning studies in Turkey were begun to be carried out at the academic level with the beginning of landscape architecture education in the 1970s. In these studies, mostly, planning methods and techniques developed by planners in foreign countries have been adapted according to the conditions of our country and have been used by being developed. There are numerous valuable studies on this subject that have been conducted to date. The studies can be evaluated in three stages in terms of the methods and techniques used, as listed below.

• Studies which are based on the determination of ecological units, which use the basic method of overlaying the natural and cultural landscape elements, and which include multi-factor evaluations. Along with the advancing technological developments, geographic information systems are mainly used in recent researches (Başal, 1974; Yücel, 1997; Uzun et al, 1993; Uzun, 2003; Say et al, 2012).

• Studies based on the analysis of the current structure of the landscape and temporal changes in the landscape (Alphan & Yılmaz, 2005; Tağıl, 2014).

• Studies where landscape character types are determined and usage decisions are made for its current structure and function (Uzun et al, 2012; Erdoğan, 2014; Şahin et al, 2014; Gülçin, 2018).

In addition, recent studies on the integration of spatial plans and landscape plans with ecosystem services have brought a different approach to landscape plans (Yılmaz Kaya ve Uzun, 2019; Yohannes et al, 2021; Tokgöz et al, 2022). In recent years, studies on Sustainable Rural Development have emphasized the importance of landscape plans in the process of sustainable planning and creating landscapes close to nature (Carlier, J., & Moran, J. 2019; Aksu, 2021; Guo et al 2020; Akbana and Bulut, 2022)

The magnitude of the devastating effect of the Kahramanmaraş-centered earthquake disaster that took place in our country on February 06, 2023 has also revealed the necessity of having an effective plan and plan decisions in terms of measures to be taken against such natural disasters.

In this study, the spatial planning process in our country and the hierarchy in this process are examined, and it is aimed to reveal the contribution of landscape plans to the solution of existing problems with a case study. In this context, Adana Landscape Plan proposal has been prepared.

2. Materıal and Method

2.1.Material

The research area covers an area of 241.425,5 hectares, where four central districts of Adana province (Yüreğir, Seyhan, Sarıçam, Çukurova) are located. Located between 36°44'-37°16' north latitude and 34°01'-35°42' east longitude, the research area is surrounded by Pozantı, Aladağ, Kozan districts in the north, Ceyhan in the east, İmamoğlu in the northeast, Yumurtalık in the southeast and Karataş in the south (Figure 1).

In order to determine the current situation of the research area, the maps, reports and statistics prepared by different institutions were used in obtaining spatial and socio-cultural data listed below. Within the scope of the research, the GIS software ArcMAP program was used to create spatial databases, produce related maps and conduct analysis.
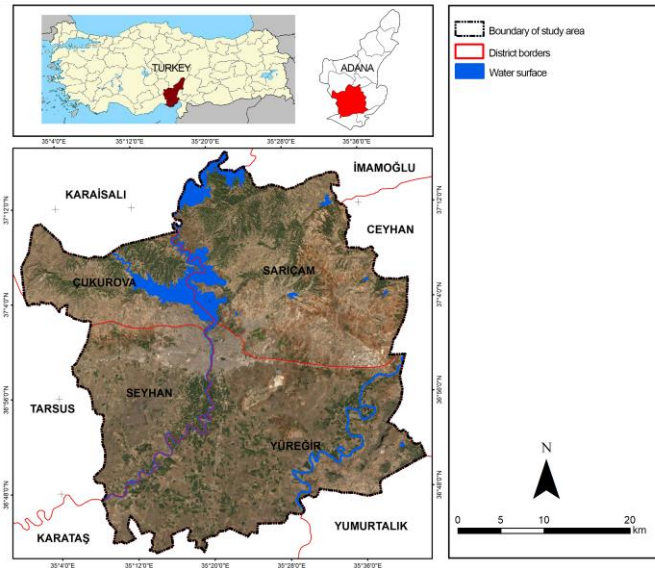

Figure 1. Research area

2.2. Method

In this study, the method given in Figure 2 has been applied, adhering to the basic framework of the landscape planning process highlighted in the European Landscape Convention.

At the first stage of the study, which has been generally carried out in four stages, studies have been conducted to determine the landscape inventory of the research area. At this stage, first of all, natural landscape elements and cultural landscape elements have been examined. In this context, satellite images, thematic maps, plans and GIS techniques of the area were used. In the second stage of the study, a land cover map has been created using the CORINE land cover classification. The explanation of the classification study carried out at this stage is given under a separate title in the next section.

At the second stage, the landscape character analysis study has been conducted by compiling from methods developed by Swanwick (2002), Wascher (2005), Uzun et al. (2012) and Şükran et al. (2014). In this context, firstly, landscape character types have been created based on land capability classes,

geological formations, slope groups, large soil groups and land cover data. After determining landscape character types, landscape character areas have been determined based on weighted attribute elements, land cover, landscape character types and land surveys in landscape perception. After determining the character areas, landscape information catalogs for these areas have been prepared. Thus, an inventory of the available data has been created under the headings of "natural landscape features", "cultural landscape features" and "aesthetic landscape features", which are effective in the formation of the character of each area, and images taken from a point where the character traits of the area are detected have been added to the catalogs.

The third stage of the study is the preparation stage of the landscape plan, which includes the spatial use decisions of the study. In the light of the findings obtained in previous chapters, spatial use decisions are specified as "landscapes that need absolute protection", "limited-use landscapes" and "controlled-use landscapes" by especially evaluating the functions of landscape character areas.

At the fourth stage, which is the last stage of the study, strategies that will form a basis for landscape policies based on plan decisions have been discussed. In this context, proposals for the integration of a functional landscape planning have also been presented in the spatial planning process in our country.

At the fourth stage, which is the last stage of the study, strategies that will form a basis for landscape policies based on plan decisions have been discussed. In this context, proposals for the integration of a functional landscape planning have also been presented in the spatial planning process in our country.
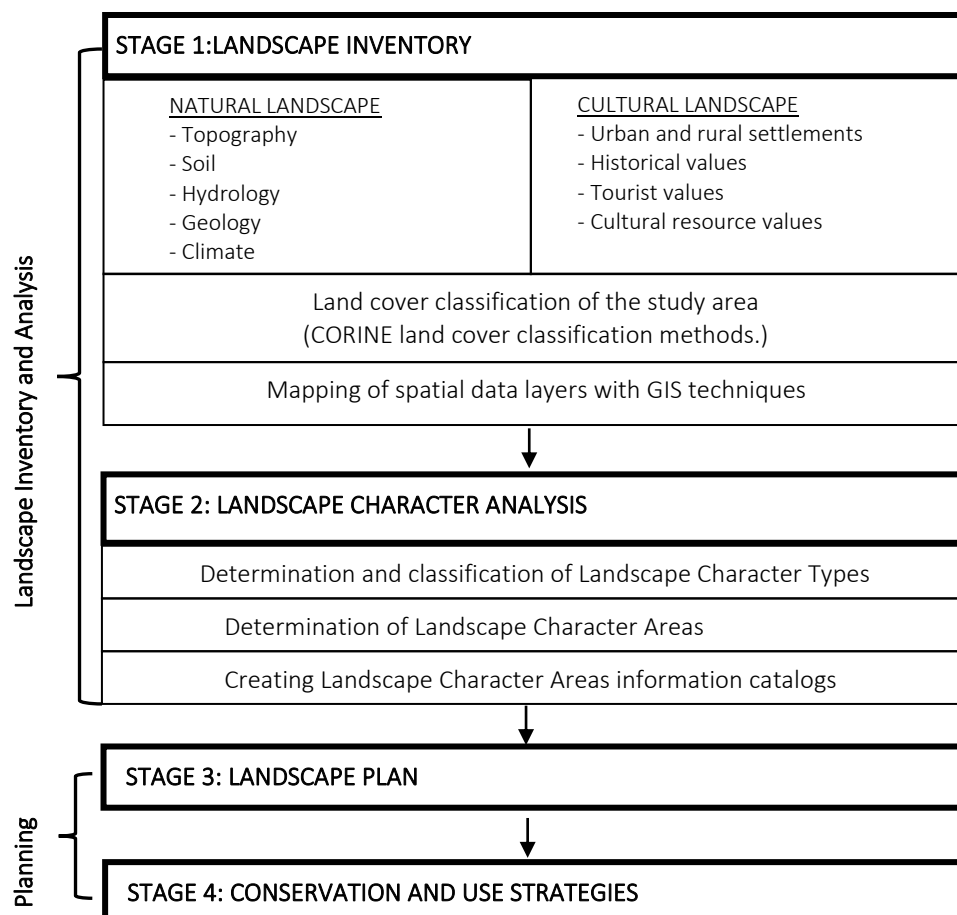

Figure 2. Stages of the study conducted in the study

2.2.1.Land Cover Classification

The CORINE land cover classification model determined by the European Environment Agency has been taken as a basis at the creation of land cover numerical data in the research area. There are 44 classes in the CORINE classification model, which consists of three levels. Of these classes, the land cover classes within the scope of the research area are given in Table 1.

As seen in the table, 15 classes included in the Corine classification method have been determined in the research area. Military areas have also been added to the CORINE classification method, which is carried out at three levels within the scope of the study, as a fourth level due to its participation in the field of research. Water surface boundaries and roads in the classification have been obtained from topographic maps provided from General Command of Mapping, from data on forest and semi-natural areas, from stand maps provided from the Regional Directorate of Forestry, and other uses have been obtained from the Environmental Plan and zoning plans. The boundaries of the designated land cover classes have been comparatively digitized from the spatial data sources used. Göktürk II satellite image and the base map layer (basemaps) in ArcMap have been used as bedplate data for control purposes.

Table 1. CORINE land cover classes in the research area

Level I	Level II	Level III
1. Artificial surface	1.1. Urban fabric	1.1.1.Continuous urban fabric
		1.1.2.Discontinuous urban fabric
	1.2. Industrial, commercial and transport units	1.2.1. Industrial or commercial units
		1.2.2.Road and rail networks and associated land
		1.2.3.Airports
	1.3. Artificial, non-agricultural vegetated areas	1.3.1.Green urban areas
2. Agricultural areas	2.1. Arable land	
	2.2. Permanent crop	
	2.3. Pastures	
3. Forest and seminatural areas	3.1. Forests	3.1.1.Broad-leaved forest
		3.1.2. Coniferous forest
	3.2. Shrubs and herbaceous vegetation	3.2.1. Natural grassland
	3.3. Open spaces with little or no vegetation	3.3.1. Bare rock
4. Wetlands	4.1. Inland wetlands	4.1.1. Inland marshes
5.Water bodies	5.1. Inland waters	

2.2.2.Determination and Classification of Landscape Character Types

In determining the Landscape Character Types of the research area, numerical data on land capability classes, geological formations, slope groups, large soil groups and land cover have been used (Figure 3). In each used data layer, coding has been done according to the requirement of the method. In this context, the coding method, which is developed by Wascher (2005) within the scope of the project titled "European Landscape Character Analysis Initiative - ELCA" conducted within the European Union has been taken into consideration.
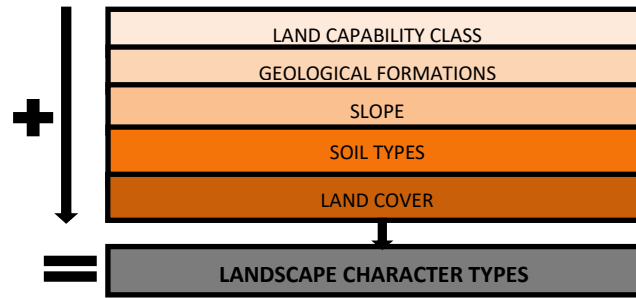
Figure 3.Landscape units used in the creation of Landscape Character Types

After determining landscape character types, landscape character areas have been determined based on weighted attribute elements in landscape perception, land cover, landscape character types and land surveys. In this context, different landscape perception formed by the combination of landscape character types has been reached.

3. FINDINGS

3.1. Land Cover Classes of Research Area

According to the CORINE land cover classification carried out in the study, the proportional distribution of the classes determined in the area is given in Table 2, and the land cover map is given in Figure 4. The land cover of the research area is mainly shaped depending on the agricultural activities carried out in the area. 60% of the total area is covered by "Arable Lands" and 11.31% by "Permanent Crops". The Class, expressed as permanent crops, consists mostly of citrus orchards. The class "permanent city structure", which includes the city center and other settlements in the area, covers 7.01% of the total area. Forest areas in the area have a share of approximately 12%.
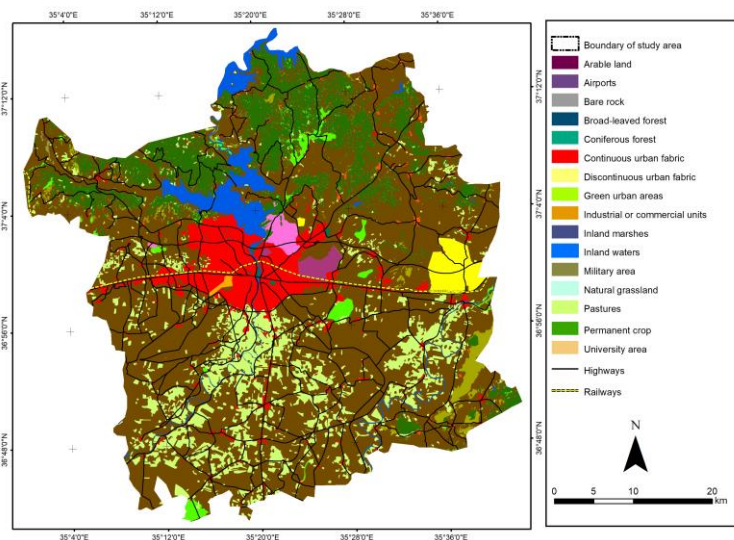

Figure 4. Land cover

Table 2. The occupied area and proportional distribution of the land cover in the research area

Land Cover	Area (ha)	%
Arable land	145.202,01	60,14
Airports	255,96	0,11
Bare rock	8,46	0,004
Broad- leaved forest	593,31	0,25
Coniferous forest	26.701,51	11,06
Continuous urban fabric	16.928,17	7,01
Discontinuous urban fabric	887,12	0,37
Green urban areas	267,44	0,11
Industrial or commerical units	3.757,52	1,56
Inland marshes	121,59	0,05
Inland waters	8.445,70	3,50
Military area	1.449,14	0,60
Natural grassland	3.919,98	1,62
Pastures	3.662,84	1,52
Permanent crop	27.307,39	11,31
University area	1.917,36	0,79
Total	**241.425,50**	**100,00**

Arable lands are mainly in the southern part of the research area, where the fertile soil is located. In addition, there are arable lands in the east and west of the city center. Permanent crops in the area are concentrated in the south of the city together with arable lands. Residential areas are concentrated in the section connecting the districts of Sarıçam, Yüreğir, Seyhan and Çukurova, which form the boundaries of the research area, to the Seyhan River.

3.2. Landscape Character Types

As a result of the natural structure inventory of the research area, a total of 41602 pieces of landscape units have been formed by overlaying digital maps of 8 different land capability classes, 13 geological formations, 6 different slope groups, 7 large soil groups and 16 land cover classes, and, on the other hand, 1935 landscape character types have been obtained by combining the same units (Figure 5). It provides a more sensitive distinction in the character types of the natural structure and cultural structure that determine the character of the landscapes in the area,in other words, of the increase in the number of variables. This, in turn, increases the number of character types. The identification of landscape character types is defined as in Figure 6.

In this study, since the areas where housing texture and water surfaces are located in the formation of character types are not classified in terms of large soil groups and land capability classes, character types have not been formed in terms of soil in these areas.
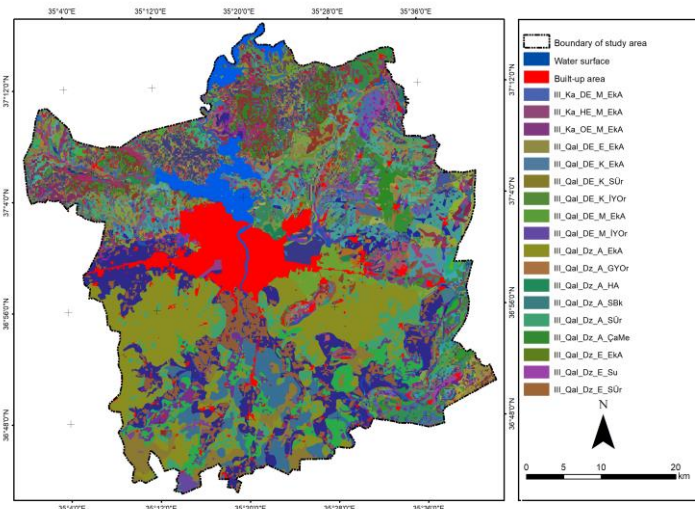
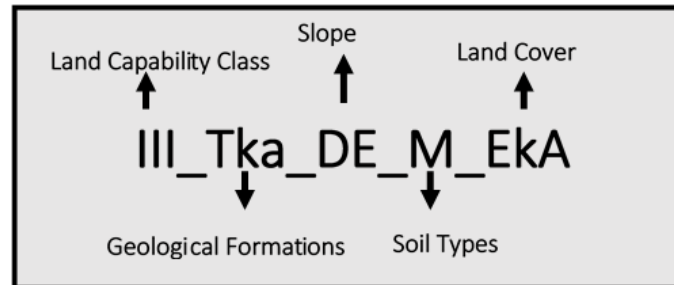Figure 5. Landscape Character Types of the Research Area

Figure 6. Identification system used for landscape character types of the research area

3.3. Landscape Character Areas

Although 1935 landscape character types determined by the landscape inventory in the research area provide important data for determining the landscape character elements, it is not sufficient to perceive landscapes as a whole piece of land. For this reason, within the scope of the study, it was tried to determine the landscape areas that present a distinctive visual perception from other landscapes with the combination of different types of landscape characters and through field survey studies. A total of 25 Landscape Character Areas have been formed, and mapped and given in Figure 7. Landscape character areas have been evaluated in terms of natural landscape features, cultural landscape elements and aesthetic landscape features. In this way, general features created by the dominant character types in landscape areas and photos that clearly reveal the visual perception of each landscape area have been added to the catalog.

Within the scope of natural landscape features, slope, naturalness and vegetation areas have been examined. In the calculation of slope groups, slope groups according to the boundaries of the landscape areas have been calculated in GIS environment. For naturalness condition assessment, Dudley (2008)'s naturalness condition classification has been adapted to the areas close-to-nature, semi-natural areas and cultural areas and land cover classes in the research area, and are given in Table 3.
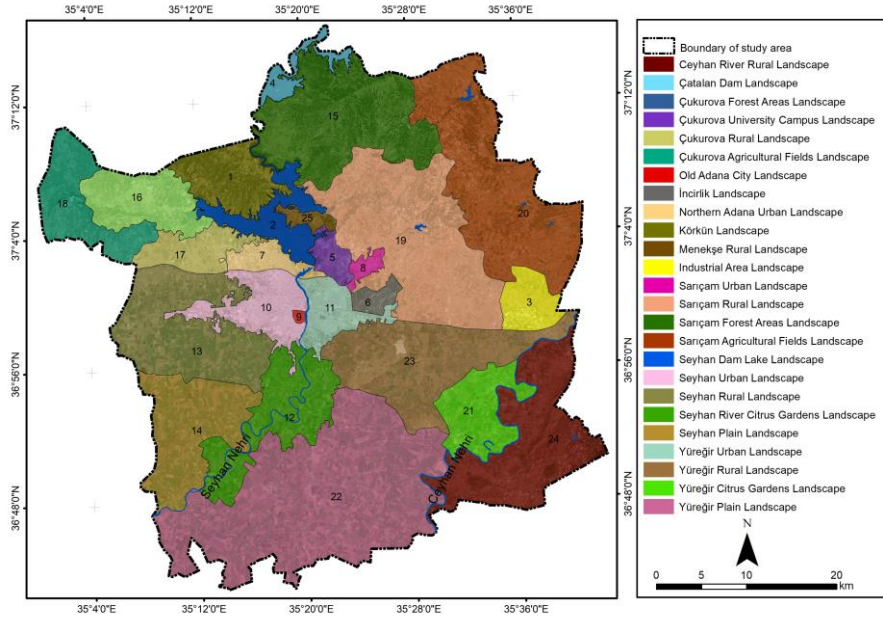
Figure 7. Landscape Character Areas formed in the research area

Table 3.Naturality levels of current uses in the research area

Land Cover	Naturalness Condition
Military area	Cultural Areas
Pastures	Semi-Natural Areas
Bare rock	Semi-Natural Areas
Arable land	Cultural Areas
Industrial or commercial units	Cultural Areas
Broad-leaved forest	Close Natural Areas
Airports	Cultural Areas
Coniferous forest	Close Natural Areas
Discontinuous urban fabric	Cultural Areas
Natural grassland	Close Natural Areas
Inland marshes	Close Natural Areas
Inland waters	Close Natural Areas
Continuous urban fabric	Cultural Areas
Permanent crop	Cultural Areas
University area	Cultural Areas
Green urban areas	Cultural Areas

In the land cover classes in the area, there are 5 close-to-nature, 2 semi-natural and 9 cultural areas. The natural features of the landscape have been added to the catalog by determining how many of these areas exist within the boundaries of the landscape areas. Within the scope of natural vegetation, areas close-to-nature in the land cover have been determined as natural vegetation areas.

The evaluation of cultural landscape elements has been made according to whether historical values, touristical values and cultural resource values found in the research area are found in landscape areas. In aesthetic landscape features, on the other hand, conditions of naturalness, diversity and dominance have been determined. The percentages of naturalness levels in natural landscape features have been calculated according to the boundaries of landscape areas and naturalness levels in terms of aesthetic landscape have been calculated as a percentage. In diversity, character types and land cover have been fragmented according to each landscape area boundary, and landscape character types and land uses numbers were determined. In dominance, on the other hand, the most

dominant feature seen in landscape areas has been determined. Examples of landscape catalogs created in the area are given in Figure 8 and Figure 9.
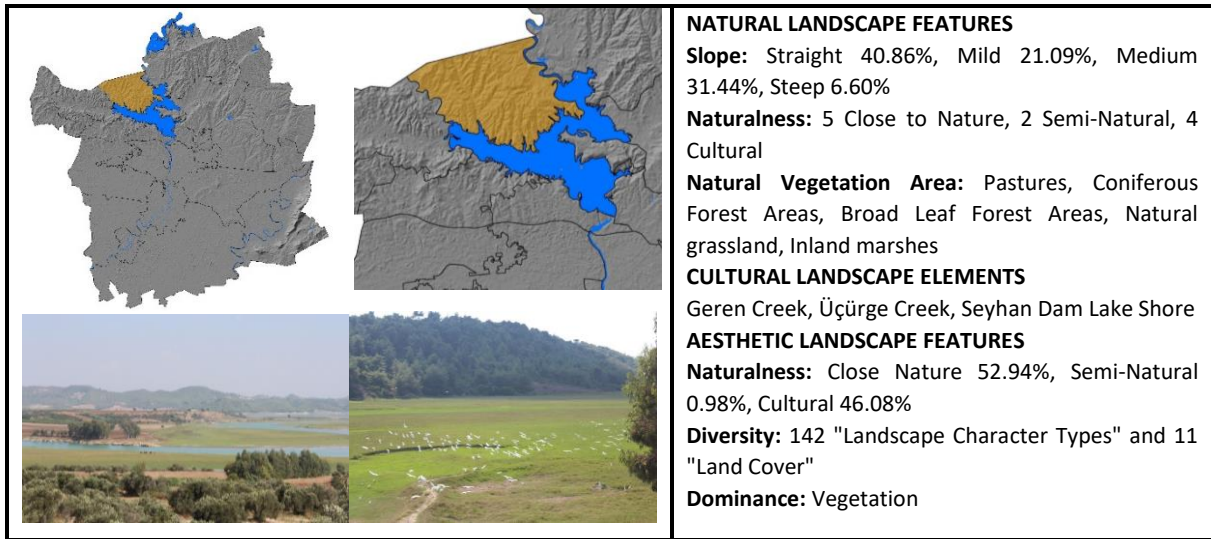

	NATURAL LANDSCAPE FEATURES
	Slope: Straight 40.86%, Mild 21.09%, Medium 31.44%, Steep 6.60%
	Naturalness: 5 Close to Nature, 2 Semi-Natural, 4 Cultural
	Natural Vegetation Area: Pastures, Coniferous Forest Areas, Broad Leaf Forest Areas, Natural grassland, Inland marshes
	CULTURAL LANDSCAPE ELEMENTS
	Geren Creek, Üçürge Creek, Seyhan Dam Lake Shore
	AESTHETIC LANDSCAPE FEATURES
	Naturalness: Close Nature 52.94%, Semi-Natural 0.98%, Cultural 46.08%
	Diversity: 142 "Landscape Character Types" and 11 "Land Cover"
	Dominance: Vegetation

Figure 8. Körkün landscape

	NATURAL LANDSCAPE FEATURES
	Slope: Straight 96.83%, Mild 3.16%, Medium 0.01%
	Naturalness: 5 Cultural
	Natural Vegetation Area: Doğal Vejetasyon Alanı bulunmamaktadır.
	CULTURAL LANDSCAPE ELEMENTS
	Şakirpaşa Airport, Mimar Sinan Open Air Theater, Archeology Museum, Central Park, Central Mosque, Atatürk Park, Citrus Park Festival Area, Cultural Site, Yeşiloba Hippodrome
	AESTHETIC LANDSCAPE FEATURES
	Naturalness: %100 Cultural
	Diversity: 8 "Landscape Character Types" and 5 "Land Cover"
	Dominance: Settlement

Figure 9. Seyhan urban landscape

3.4. Landscape Plan Decisions

Zoning has been made for the use of landscapes in the research area by evaluating Landscape Character Areas, landscape functions and landscape units based on land cover determined in the research area (Figure 10). According to this,

- **Landscapes that need absolute protection,** The forest areas located in the north of the region, the maquis shrubland around these areas and the natural reed fields located on the banks of rivers and lakes have been evaluated in this context. In the landscape function analysis, naturalness and visual quality levels have been determined to be high in this region. In addition, the presence of natural plants is in the nature of a green wedge that partially surrounds the city center in the north direction, and its protection is important for both natural flora and fauna and urban activities.

- **Limited used landscapes,** There are agricultural areas, meadow pasture areas and ecotourism areas in this region, which is located between the areas that need to be protected and urban areas. Since their use depends on the natural characteristics of the area, in other words, the ecosystem services, these are areas where their capacity needs to be considered. The drainage required sections of

agricultural irrigated areas that are mainly located in the agricultural areas surrounding the east, west and south of the city center have been determined as agricultural areas that require control measures with considering the permeability of the area. This area, which is a buffer zone between landscapes that need to be protected and has relatively more natural qualities and the city landscape, has been designated areas of ecotourism activity for recreational activities. In this region, recreational activities should be carried out within the certain limits. As a result of the surveys, it is possible to carry out water-related ecotourism activities, especially in the sloping areas to the north of the city and in and around Seyhan Dam Lake.

- **Controlled landscapes**, It covers the frequent and sparse settlements in the research area and large urban uses (campus area, military areas, airport, urban green zones etc.). This region is the area where urban landscape elements are predominant. However, rural settlements have also been evaluated in this region due to the predominance of human activities.

In the area, areas where especially erosion risk is high have been determined as restoration areas. The current protection statuses are also posted to the plan and their continuation is envisaged. According to this, the wildlife improvement area on the shore of the Seyhan Dam Lake, the archaeological sites that include the old city center and the section of the Çatalan Dam, which is the drinking water source of the city and in the north of the area, that falls within the research area are specified in the plan as it is.
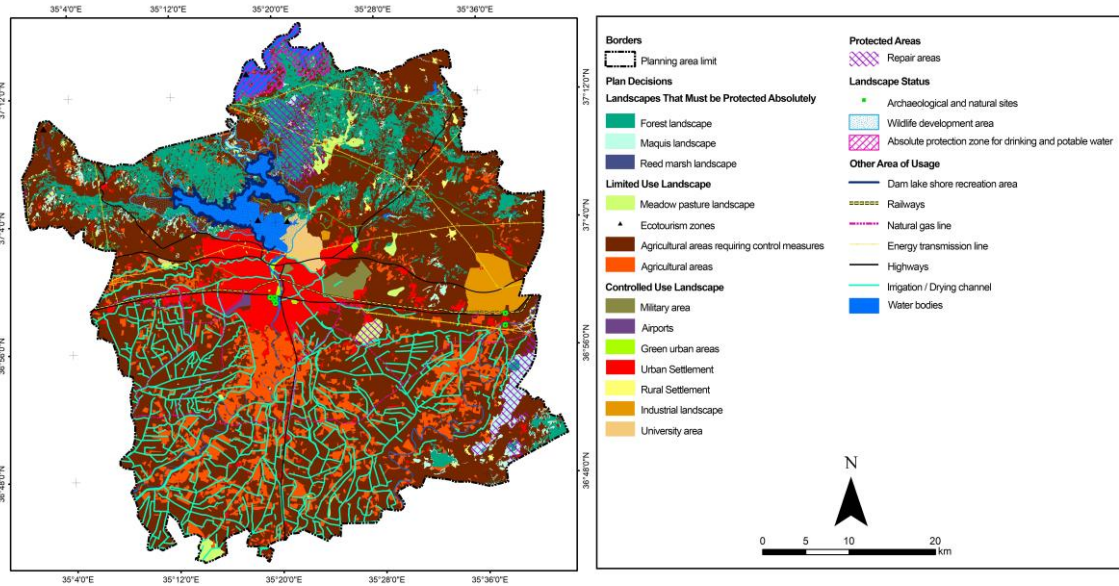

Figure 10. Landscape plan of the research area

4. DISCUSSION AND CONCLUSION

Although studies on landscape planning have gained pace in recent years in our country, as stated by Uzun et al. (2012), the fact that the issue has not become a legal and administrative obligation creates a contradictory situation against the determined protection strategies. Preparation of landscape plans has a distinct importance for areas covering urban, rural and close to nature landscapes. Especially in urban areas where human activities are intense, determination of areas that require limited and controlled use of the landscape will help establish the balance of protection and use. Landscape plans prepared by adhering to the functions of landscapes must technically have certain standards in subjects such as method, scope and scale in order to be a bedplate for other local plans in the hierarchy of plans. Thus, it will be possible to develop basic approaches and strategies for the protection and use of landscapes on a local, regional and national scale. When the studies conducted are examined, it is seen that the framework of the proposals has been changed due to the difference in scope. Although it is possible to associate some of these differences with spatial differences, a significant portion of them can be associated with the planning processes.

Within the scope of this study, the proposals for Adana city center and its immediate surroundings, which constitute the research area, can be sorted under four articles in general based on the findings obtained.

- Since the research area is a city center where approximately 1.500.000 people live, it is of particular importance to create protection and use decisions for both the city center and its immediate surroundings. Especially given that the area's immediate surroundings are surrounded by fertile agricultural land, the development of the settlement pattern must be restrained. In the plans to be prepared at the local level in the area, especially in the zoning plans, the use of landscape plans, which include decisions on the protection and use of the landscape, as a bedplate will help for a controlled urban development.

- In the region, which is diverse in terms of morphological features and located in the north of the city, the protection of natural vegetation should be maintained by protecting and strengthening forest areas in this context.

- The rural area in the immediate vicinity of the city and the region that includes the city center should be connected with urban planning and urban design studies. In this context, green corridors should be evaluated.

- Preparation of monitoring and management plans for landscapes in the area will assist in the evaluation of change and dynamism in case the landscape plan decisions are implemented. In addition, the fact that the information catalogs created on the landscape character areas can be updated is also an auxiliary document for the plans to be prepared in the future for the area.

The implementation of these proposals for the research area depends on the determination of the legal framework of the subject. The legal and administrative dimension of spatial planning varies from country to country. At the turn of the prominent reasons for this situation, geographical location, administrative structuring and general planning approach in this country can be considered. Environmental layout plans within the existing planning system in our country are not qualified to form a bedplate for sub-scale zoning plans due to their scope. Determination of landscape character areas and landscape plans in which usage decisions are developed depending on the functions they have, are of the nature to eliminate an important gap in this direction.

The severe consequences of the earthquake disaster in Kahramanmaraş showed that great precautions should be taken against these disasters. It has made the management and planning approach to create living environments especially after the earthquake obligatory. The fact that our cities are not planned according to the natural disasters experienced or to be experienced, and the insufficient green areas have highlighted the inadequacy of the landscape planning studies on the possible negative effects and with the landscape plans,
- The suitability of the location of the emergency assembly and temporary shelter areas,
- Location selection of new construction areas,
- Participatory new construction in accordance with the local natural and cultural landscape character,
- It demonstrates the importance of making plans and decisions regarding the psycho-social health of earthquake victims within the scope of landscape designs and practices of permanent residences (TMMOB Peyzaj Mimarları Odası, 2023).

Compliance with Ethical Standard

REFERENCES

Akbana, A., Bulut, Y., (2020), Uluabat gölü ve çevresinde peyzaj karakter alanlarının belirlenerek sürdürülebilir alan kullanım stratejilerinin geliştirilmesi. Artvin Çoruh Üniversitesi Orman Fak Dergisi, 21(2):231-243

Aksu, G.A., (2021). Sürdürülebilir Kırsal Kalkınma Uygulaması Örneği: Yukarı Avusturya, Ottenschlag Köyü ve Mooswiesen Biyolojik Göleti Peyzaj Planlama Projesi. Avrupa Bilim ve Teknoloji Dergisi , (27) , 1061-1072 . DOI: 10.31590/ejosat.

Alphan, H., ve Yılmaz, K. T., (2005). Monitoring environmental changes in the Mediterranean coastal landscape: the case of Cukurova, Turkey. Environmental Management, 35(5), 607-619

Başal, M., (1974). İznik Gölü ve Çevresi Peyzaj Planlaması. Doktora Tezi, Ankara Üniversitesi Ziraat Fakültesi Bahçe Mimarisi ve Ağaçlandırma Kürsüsü, Ankara.

Buchwald, K., and Engelhart, W. (Eds.)., (1968). Handbuch für Landschaftpflege und Naturschutz. Bd. 1. Grundlagen. BLV Verlagsgesellschaft, Munich, Bern, Wien.

Carlier, J., & Moran, J. (2019). Landscape typology and ecological connectivity assessment to inform Greenway design. Science of the Total Environment, 651, 3241-3252.

Dansereau, P., (1975). Inscape and Landscape. The Human Perception of Environment. Columbia University Press, New York and London.

Davidoff, P. and Reiner, T. A., (1962). A choice theory of planning. Journal of the American institute of Planners, 28(2), 103-115.

Dudley, N., (2008). Guidelines for applying protected area management categories, IUCN Publications Services, UK. 106 s.

Erdoğan, A., (2014). Peyzaj Karakter Analizi: Artvin Şavşat İlçesi Örneği. Doktora Tezi. Atatürk Üniversitesi Fen Bilimleri Enstitüsü, Erzurum.

Ersoy, M., (2007). Planlama Kuramına Giriş. İmge Kitabevi, Ankara.

Guo, A., Yang, J., Sun, W., Xiao, X., Cecilia, J. X., Jin, C., & Li, X. (2020). Impact of urban morphology and landscape characteristics on spatiotemporal heterogeneity of land surface temperature. Sustainable Cities and Society, 63, 102443.

Gülçin, D., (2018). Yeşil Altyapı Bağlamında Açık/Yeşil Alan Sistemlerinin Uygulama Olanaklarının Araştırılması: Aşağı Büyük Menderes Havzası Örneği. Doktora Tezi. Çukurova Üniversitesi, Fen Bilimleri Enstitüsü, Adana.

Hills, G. A., (1955). Field Methods for Investigating Site: GA Hills (No. 4). Province of Ontario, Department of Lands and Forests.

Karadeniz, N., Otçu, İ. K., Tekin Cüre, C., Şenöz, E. ve Ceylan, K. S., (2016). Peyzaj Planlama Senaryolarının Geodesign Yaklaşımı ile Geliştirilmesi: İmrahor Vadisi Örneği. Coğrafi Bilimler Dergisi (CBD), 14 (2), 135- 156.

Kiemstedt, H. (Ed.). (1975). Landschaftsbewertung für die Erhohlung im Sauerland. Institut für Landes-und Stadtentwicklungs Forschung des Landes Nordhein-Westfalen. Band 1.008/1. Dortmund.

Köy Hizmetleri Genel Müdürlüğü, (1996). Adana İli Arazi Varlığı. Köy Hizmetleri Genel Müdürlüğü Ankara.

Krönert, R. and Volk, M., Steinhardt, U., (2001). Introduction: Landscape Balance and landscape Assessment. In Landscape Balance and Landscape Assessment (pp. 1-22). Springer, Berlin, Heidelberg.

Lewis, Philip H., 1964. Quality Corridors for Wisconsin. Landscape Architecture 54, no. 2.

Lyndon, J. E., 1968. Landscape Planning in the International Organizations. International Union for Conservation of Nature and Natural Resources, Landscape Planning Commission. S. IUCN Publications. 3

McHarg, I. L. and Mumford, L., (1969). Design with nature. New York: American Museum of Natural History.

Say N., (2017). Peyzaj Planlama Projesi Ders notları (Basılmamış). Ç.Ü. Peyzaj Mimarlığı Bölümü, Adana.

Say N., Yücel M., Fisinoğlu M., Sirel B. ve Erginkaya C., (2012). Mersin Örneğinde Kentsel Gelişmenin Doğal Yapı Üzerindeki Etkisinin Belirlenmesi Ve Yeni Kentsel Kullanım Alanlarının Önerilmesi. Tübitak Proje No: 108y330, Sonuç Raporu, Ç.Ü. Peyzaj Mimarlığı Bölümü, Adana.

Steiner, F. R., (2012). The living landscape: an ecological approach to landscape planning. Island Press.

Swanvick, C., (2002). Countryside Agency and Scottish Natural Heritage. Landscape Character Assessment, Guidance for England and Scotland. Prepared by Carys Swanwick on behalf of the Countryside Agency and Scottish Natural Heritage.

Şahin, Ş., Perçin, H., Kurum, E., Uzun, O. ve Bilgili, B. C., (2014). Bölge - Alt Bölge (İl) Ölçeğinde Peyzaj Karakter Analizi ve Değerlendirmesi Ulusal Teknik Kılavuzu. Müşteri Kurumların T.C. İçişleri Bakanlığı, T.C. Çevre ve Şehircilik Bakanlığı ve T.C. Orman ve Su İşleri Bakanlığı olduğu, T.C. Ankara Üniversitesinin Yürütücü Kuruluş olduğu ve TÜBİTAK KAMAG 1007 Programı 109G074 No'lu PEYZAJ-44 Projesi Çıktısı, 148 Sayfa, Ankara.

Tağıl, Ş., (2014). Edremit Körfezi'nin Kuzey Sahil Bölgesinde peyzaj paterni ve arazi örtüsünün zamansal ve mekânsal değişimi. Balıkesir Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 17(31), 1-16.

TMMOB Peyzaj Mimarları Odası, (2023). Afet Riski Azaltma Ve Dirençlilik Artırma Ön Teknik Raporu, TMMOB Peyzaj Mimarları Odası Yayınları, Ankara.

Tokgöz, G., Aysu Kapan, A., and Özyurt Ökten, S. S. , (2022). "Ekosistem Hizmetleri Haritalamada Matris Yöntemi Kullanımı Adana Sarıçam Örneği," Turkish Journal of Forestry, vol. 23, no. 1, pp. 69–78, Mar.

Uzun, O., (2003). Düzce Akarsuyu Havzası Peyzaj Değerlendirmesi ve Yönetim Modelinin Geliştirilmesi. Doktora Tezi, Ankara Üniversitesi Fen Bilimleri Enstitüsü, Ankara.

Uzun, O., İlke, E.F., Çetinkaya, G., Erduran, F. ve Açıksöz, S., (2012). Konya İli Bozkır-Seydişehir-Ahırlı-Yalıhüyük İlçeleri ve Suğla Gölü Mevkii Peyzaj Yönetimi Koruma ve Planlama Projesi. Peyzaj Planlama. Orman ve Su İşleri Bakanlığı Doğa Koruma ve Milli Parklar Genel Müdürlüğü, Ankara. ISBN No: 978-605-4610-09-9.

Wascher, D.M., 2005. European Landscape Character Areas-Typologies, Cartography and Indicators for the Assessment of Sustainable Landscapes. Final Project Report as deliverable from the EU's Accompanying Measure project European Landscape Character Assessment Initiative (ELCAI), Funded Under the 5th Framework Programme on Energy, Environment and Sustainable Development, Published by Landscape Europe in Collaboration with ELCAI Project Partners.

Wende, W., Wojtkiewicz, W., Marschall, I., Heiland, S., Lipp, T., Reinke, M. and Schmidt, C. (2012). Putting the plan into practice: implementation of proposals for measures of local landscape plans. Landscape research, 37(4), 483-500.

Yohannes, H., Soromessa, T., Argaw, M., & Dewan, A. (2021). Spatio-temporal changes in habitat quality and linkage with landscape characteristics in the Beressa watershed, Blue Nile basin of Ethiopian highlands. Journal of Environmental Management, 281, 111885.

Yücel M., (1997). Çukurova Deltası'nda Seyhan Nehri ile Yumurtalık Körfezi Arasında Kalan Kesimde Ekolojik Riziko Analizi. BAP-PM-96/03 Nolu Araştırma Projesi Kesin Raporu. Ç.Ü. Ziraat Fakültesi, Peyzaj Mimarlığı Bölümü, Adana.

Yılmaz Kaya, M. & Uzun, O., (2019). Ekosistem Hizmetleri ve Mekânsal Planlama İlişkisinin Peyzaj Planlama Çerçevesinde Değerlendirilmesi. Düzce Üniversitesi Bilim ve Teknoloji Dergisi, 7 (3) , 2166-2193. DOI: 10.29130/dubited.546496