

# The evaluation of the urban parks in Konya province in terms of quality, sufficiency, maintenance, and growth rate

Sertaç Güngör · Ahmet Tuğrul Polat

Received: 8 February 2017 / Accepted: 1 March 2017 / Published online: 20 March 2017 © Springer International Publishing Switzerland 2017

Abstract Nowadays, the understanding of physically, socially, and visually sufficient and high-standard outdoor arrangements has begun to appear. The most important ones among this kind of spaces are urban parks which contain many recreational opportunities and facilities together. The aim of this study is to identify the current situation of the urban parks in Konya province and the facilities in the parks in terms of quality, sufficiency, growth rate, and maintenance. The second purpose of the study is to obtain information about the park users' evaluations of the park officers within the context of park visits and information sources of the users related to the parks. Within the context of the study, the questionnaires were conducted by face-to-face interviews with 494 park users. The urban parks in Konya province were evaluated by the park users in terms of quality, sufficiency, maintenance, and growth rate criteria. While 44.1% of the users evaluated the parks as "good" in terms of quality, 4.7% of the users stated that the quality of the parks was "bad." Considering the sufficiency of the urban parks, the findings represent that majority of the users identified the parks as sufficient and 27.9% of them identified insufficient. 44.1% of the users stated that the parks were well maintained and 10.1% considered the parks were badly maintained. The growth rate of the urban parks in Konya was described as "fast" by 48.6% of the users and as "normal" by 29.8% of the users.

**Keywords** Urban parks · Park efficiency · Park quality · Park amenities · Konya

#### Introduction

The most important feature of a city is the distinguishing character of that city. Character of a city develops within a net that extends from its geographic location to its people and becomes that city identity (Demir et al., 2016). Recently, the understanding of physically, socially, and visually sufficient and high-standard outdoor arrangements has begun to appear. Urban spaces have great importance in meeting the requirements in this regard in the daily life environment. The most important ones among this kind of spaces are urban parks which contain many recreational opportunities and facilities together (Polat and ve Önder, 2004). Urban park areas can be defined as common used areas organized by the city administration to enable people in cities to rest, walk around, carry out various recreation activities, and be in touch with nature.

Urban parks, which are an important resource for recreation, are one of the invaluable elements of the urban environment (Page et al., 1994). Although parks are visited occasionally, they provide services that help children/youth to improve their skills, knowledge, and predispositions with social, psychological (Ostermann, 2010), and society-based activities that can significantly increase the quality of life of citizens (Dunnett et al., 2002; Walker, 2004). Urban parks also constitute the outdoors organized for recreational purposes and

S. Güngör (ﷺ) · A. T. Polat
Faculty of Agriculture, Department of Landscape Architecture,
Selcuk University, Konya, Turkey
e-mail: sertac@selcuk.edu.tr



provide opportunities for active and passive recreations of people (Oğuz, 1998; Uzun, 2005). Esthetic, historical, and recreational values of the urban landscape increase the attractiveness of the city, provide employment and income by increasing tourism arrivals, and help people relax and refresh by reducing aggression (Dunnett et al., 2002; Chiesura, 2004). The parks representing urban green spaces play a significant role that balances urban protection requirements against the degradation of the urban environment by maintaining the urban growth rate (Woolley, 2003). The urban environment makes great contributions to the visual quality (Polat, 2011). Parks make people living in cities healthier by making cities healthier places, because regular exercising in parks is the key to preventive medicine (Oğuz, 1998). It encourages the use of outdoors and increases social union and interaction among neighbors. The presence of trees and grass in communal outdoor spaces supports the development of social bonds (Chiesura, 2004) and reduces pollution by filtering solid and gas particles in the air (Nowak et al., 2006).

Evaluation of the visual quality is important for obtaining data in planning studies. The visual quality evaluation is used to determine and listing the areas of cultural inheritance areas, to determine the landscape areas with esthetic value and to determine the physical landscape area components that stand out. Determining, classifying, and evaluating the landscapes or visual landscape values that could provide visual attraction and providing the possibility of recreation and making the choice of visual landscaping constitute the visual landscape analysis (VLA). VLA provides the data required for landscape planning, designing, and management of landscaping (Celik and Açıksöz, 2016).

Urban parks continuously evolve with the change of social problems, recreational habits of the cities as a part of the era, culture, and society we live in (Cranz, 1991). Moreover, this indicates that despite all these benefits, while some parks are visited rarely, others are used intensively. Evaluating the parks and measuring their usage to examine their contributions and to understand why some of them are not used improve the contributions that the parks provide (Cohen et al., 2007; Evenson et al., 2012).

In recent years, progress in urbanization, environmental protection, recreation, and people's goals such as physical activity in the daily routine increases the need for the green spaces in the society to provide service. Furthermore, the development, maintenance, and protection of the service quality of parks present many challenges for the society and city administration (Iamtrakul et al., 2005).

Providing physical and social environments for park visitors and organizing facilities and programs for experiences that the visitors will appreciate are the two important purposes of park managers. Especially limited park areas with high use and a wide range of activities in urban areas make it difficult to carry out these purposes (Gobster, 2002).

The success of the quality urban park environments is affected by planning, designing, implementation and maintenance conditions (Yücel and ve Yıldızcı, 2006). Considering the characteristics particular to a place and its residents in the planning of the parks is important in terms of providing the functionality of urban parks. Design rules, user preferences, and socio-cultural, climatic, and geographical characteristics particular to the city identify the quality of the usage areas and activities in the park (Onsekiz and ve Emür, 2008).

The fact that designers can reveal what, for whom, and how they design will enable to find out the real goals of planning. In designs, getting and evaluating the opinions of each resident and other users in the area can require a lot of time and effort. Studying on questionnaires at an appropriate rate or on specific user groups will provide sufficient knowledge for design (Yaslica, 1991; Yaşlıca and ve Tanrıvermiş, 1999).

The questionnaires conducted on the use of parks are applied to identify the level of the visitors' satisfaction. Thus, the satisfaction of the park users should be determined based on their demands, requirements, and trends. The data obtained from the questionnaires of the park users are evaluated while preparing the park management plans (Yorulmaz, 2006).

The requests and the expectations of the people who will use the park are determined by various methods at the planning stage. There is a limited number of studies measuring the impressions and reactions of the users about the park after the park is realized (Altınçekiç and ve Erdönmez, 2001). Increasing the number of similar studies will form a basis for the renewal of the parks in use, will increase the level of user satisfaction with these parks, and will provide an insight on the other related occupational disciplines, especially landscape architecture in the planning, designing, implementation, and management studies to be conducted in the future.

The aim of this study is to identify the current situation of the urban parks in Konya province and the facilities in the parks in terms of quality, sufficiency,



growth rate, and maintenance. Moreover, the second purpose of the study is to obtain information about the park users' evaluations of the park officers within the context of park visits and information sources of the users related to the parks. Suggestions will be made to use the findings derived by investigating the effects of the facilities in the parks on the quality, sufficiency, and growth rate of the parks in Konya, in the planning, designing, and management issues effectively.

## Current situation of green spaces in Konya province

The phenomenon of urbanization, which has accelerated since the 1950s, has now developed against green spaces, and nowadays, the majority of our contemporary cities are in need of new open and green spaces that are organized in suitable locations and adequate amounts or are in need of the suitable reorganization of the present areas (Eymirli, 1994). Lastly, in accordance with the provisions of the "Regulation on the Principles Related to the Implementation and Amendments on the Construction Plan" published in the Official Gazette No. 23804 dated Feb. 09, 1999, for the cities in Turkey, green spaces per capita were determined to be at least 10 m<sup>2</sup> in urban areas and at least 14 m<sup>2</sup> per capita outside municipal and adjacent area boundaries (Önder and ve Polat, 2012; Polat and ve Güngör, 2013).

In the studies conducted in Konya, the green spaces per capita are 12.53 m<sup>2</sup> in Selçuklu district, 59.27 m<sup>2</sup> in Meram district, and 9.93 m<sup>2</sup> in Karatay district (Table 1).

This value is considerably higher in European cities when compared to the values revealed for the cities in Turkey. In the Urban Control report published by the European Commission, urban green spaces are defined as "green spaces in the city that are available for public use, for instance, parks," and the average value per capita in 32 European cities in 1996 was indicated to be 26 m<sup>2</sup> (Önder and ve Polat, 2012).

### Material and method

The urban parks in Konya province and the visitors using these parks were selected as the main material of this study (Fig. 1). Moreover, A4-sized questionnaire forms were used as auxiliary materials. At first, a pre-questionnaire form was created for the questions to be included in the questionnaire forms to identify the

59.27 Total green area 172.057 Decare 23.068 57.633 57.33 Decare (piece) Jrban parks (8) (8) 19.639 (3) 4.995 (14) m<sup>2</sup>/person 0.38 1.85 Decare (piece) Sports fields 2.485 (72) 580 (12) 1.60 Neighborhood parks Decare (piece) 2.568 (117) 4.654 (171) 4.153 (34) m<sup>2</sup>/person 0.13 Decare (piece) Playgrounds .045 (229) 395 (71) 448 (88) Population 232.237 290.297 459.921 Selçuklu Karatay **District** Meram

Table 1 The green spaces in the central districts of Konya City





**Fig. 1** A view from the urban parks in Konya (Anonymous, 2016)

users' demographic characteristics and preferences for the park visits in detail. While designing the questionnaire, it was taken into consideration to make it easy and applicable to other studies.

Since the population size was 1 million in the determination of the sample size (for  $\alpha = 0.05, \pm 0.03, \pm 0.05$ , and  $\pm 0.10$  sampling errors), 400 people were accepted (Yazicioglu and ve Erdogan, 2004).

Within the scope of the study, more than 500 visitors were interviewed. However, the study was conducted on valid 494 interviews.

The questionnaire was applied to the park users at several points where the park was used extensively in the urban parks selected as the study area, between the hours of 10.00 and 17.00 during the day, on weekdays/weekends by maintaining an equal distribution to provide visitor diversity. Each visitor was interviewed individually.

The data obtained from the questionnaires applied to the park users and organized with Microsoft Excel (Office 2016) software. Then, the statistical analyses were conducted using SPSS 21.0 software. The regression analysis was carried out to study the effects of the facilities in the parks on the quality, sufficiency, and growth rate of the parks in Konya.

# **Findings**

Demographic characteristics of the users

Within the scope of the study, 494 park users were interviewed. The demographic characteristics of these users are shown in Table 2. The rates of the demographic characteristics of the users appeared to be at a level that represents the entire city of Konya (Polat and ve Güngör, 2013).

Current situation of the urban parks in Konya

The urban parks in Konya province were evaluated by the park users in terms of quality, sufficiency, maintenance, and growth rate criteria. While 44.1% of the users evaluated the parks as "good" in terms of quality,



 Fable 2
 The demographic characteristics of the users

Gender	Woman (%) Man (%)	Man (%)											
	243 50.8 251	251	49.2										
Age	18–34 (%)	35-49 (%)		50-64 (%)	(4	(%) < 59	(9)						
	295 59.7	107	21.7	82	16.6	10 2	2						
Residence	Karatay (%)	Meram (%)		Selçuklu (%)	(%)	Diğer (%)	(%)						
	105 21.3	166	33.6	187	37.9	36	7.3						
Education	Primary (%)	High school (%)	(%)	Colloge (	%	Univers	University (%)	Graduate	Graduate degree (%)				
	173 35	182	36.8	44 8.9		84	17	11 2.2	2.2				
Income (Turkish Liras ) 0–1000 (%) 1000–2000 (%)	0-1000 (%)	1000-2000	(%)	2000–3000 (%)		3000-5	(%) 000	5000 > (%)	(%)				
	280 56.7	153	31	44	8.9	111	11 2.2	6 1.2	1.2				
Occupation	Worker (%)	Governmen	Worker (%) Government official (%) Artisan (%)	Artisan (9	(%)	Student	(%)	Unemplo	Unemployed (%)	House	wife (%)	House wife (%) Retired (%) Others (%)	Others (%)
	60 12.1	47	9.5	4	8.9	133	133 26.9	26 5.3	5.3	92	92 18.6	53 10.7 39 7.9	39 7.9
													N = 494

4.7% of the users stated that the quality of the parks was "bad." When the condition of the sufficiency of the urban parks was evaluated, it was identified that more than half of the users found the parks sufficient, and 27.9% found them insufficient. 44.1% of the users stated that the parks were well maintained and 10.1% stated the parks were badly maintained in terms of the maintenance criterion. The growth rate of the urban parks in Konya was regarded as "fast" by 48.6% of the users and as normal by 29.8% of the users (Table 3). According to the findings of the study, it was identified that the urban parks in Konya province are quality, sufficient, and well maintained and grow fast. The green space amount per capita in Konya province confirms that (Table 1). This value is considerably higher than the amount of green space per capita in the cities in Turkey.

Current situation of the facilities in the urban parks in Konya in terms of quality

When the main facilities in the urban parks are evaluated in terms of quality, concourses, picnic areas, plantations, and playgrounds were identified to be of "good" quality at the rates of 44.9, 40.7, 39.3, and 36.6%, respectively, and toilets, ponds, and parking areas were determined to be of "poor" quality at the rates of 29.6, 27.9, and 25.5%, respectively (Table 4).

Current situation of the facilities in the urban parks in Konya in terms of sufficiency

When the main facilities in the urban parks are evaluated in terms of sufficiency, concourses, playgrounds, picnic areas, and plantations are identified to be at a "good" level at the rates of 58.1, 56.1, 55.7, and 50.4%, respectively, and parking areas, ponds, toilets, and sports fields are determined to be at a "bad" level at the rates of 37.7, 36.8, 34, and 30.4%, respectively (Table 5).

The evaluation of the park officers

76.9% of the park users stated that there were officers in the parks while 16.2% of these users stated that the officers were polite/respectful and 41.7% did not state their opinions. Moreover, while the attitudes of these people in applying the rules of the park were found to be adequate at the rate of 43.9%, they were stated to be inadequate at the rate of 32.4% (Table 6).

Table 3 Current situation of the urban parks in Konya

Evaluate th	he urban parks in	Konya in te	rms of qualit	y							
Very bad (	(%)	Bad (%)		Norma	al (%)	Good (%	)	Very good	(%)	Undec	eided (%)
4	0.8	23	4.7	173	35.0	218	44.1	75	15.2	1	0.2
Evaluate t	he urban parks in	Konya in te	erms of suffic	iency							
Very few (	(%)	Few (%)		Suffic	ient (%)	Many (%	)	Too many (	(%)	Undec	cided (%)
11	2.2	138	27.9	280	56.7	37	7.5	17	3.4	11	2.2
Evaluate the	he urban parks in	Konya in te	erms of suffic	iency.							
Very badly	y maintained (%)	Badly mai	intained (%)	Norma	al (%)	Well mai	ntained (%)	Very well n	naintained (%)	Undec	cided (%)
6	1.2	50	10.1	182	36.8	218	44.1	37	7.5	1	0.2
Evaluate t	he urban parks in	Konya in te	erms of grow	th rate							
Very slow	(%)	Slow (%)		Norma	al (%)	Fast (%)		Very fast (%	%)	Undec	cided (%)
4	0.8	28	5.7	147	29.8	240	48.6	65	13.2	10	2.0

## Information sources related to the parks

The users of the parks stated that they provide information on the parks from their friends and their immediate environment at the rate of 46.8% at the first significance level. When Table 7 is examined, it is identified that information sources such as road signs, maps, and brochures, the Internet, and TV/radio are not effective in this case.

The effects of the current situation of the park facilities in terms of quality on the quality of the urban parks in Konya

The regression test was applied to the result data of the questionnaires conducted with 409 park users within the scope of the study. The current situation of the picnic

areas, plantations, and concourses which are among the park facilities in terms of quality positively affects the quality of the urban parks in Konya. However, the current situation of the toilet facilities negatively affects the quality of the urban parks in Konya (Table 8).

The effects of the current situation of the park facilities in terms of sufficiency on the sufficiency of the urban parks in Konya

The current situations of the picnic areas and plantation which are among the park facilities in terms of sufficiency contribute to the sufficiency of the urban parks in Konya. However, the current situation of the toilet facilities negatively affects the sufficiency of the urban parks in Konya (Table 9).

Table 4 Current Situation of the facilities in the urban parks in Konya in terms of quality

	Very ba	ad (%)	Bad (	<b>%</b> )	Norma	al (%)	Good	(%)	Very go	ood (%)	Undec	ided (%)
Parking areas	49	9.9	126	25.5	160	32.4	82	16.6	8	1.6	69	14.0
Picnic areas	11	2.2	46	9.3	188	38.1	201	40.7	44	8.9	4	0.8
Playgrounds	12	2.4	46	9.3	186	37.7	181	36.6	39	7.9	30	6.1
Sports fields	18	3.6	82	16.6	189	38.3	136	27.5	24	4.9	45	9.1
Ponds	35	7.1	138	27.9	152	30.8	110	22.3	15	3.0	44	8.9
Concourses	3	.6	40	8.1	153	31.0	222	44.9	59	11.9	17	3.4
Cafeterias	15	3.0	73	14.8	170	34.4	154	31.2	24	4.9	58	11.7
Plantations	2	0.4	22	4.5	111	22.5	194	39.3	156	31.6	9	1.8
Toilets	128	25.9	146	29.6	121	24.5	71	14.4	11	2.2	17	3.4



Table 5 Current situation of the facilities in the urban parks in Konya in terms of sufficiency

	Very fe	ew (%)	Few (	<b>%</b> )	Suffici	ent (%)	Many	(%)	Too m	any (%)	Undec	ided (%)
Parking areas	75	15.2	186	37.7	151	30.6	8	1.6	2	0.4	70	14.2
Picnic areas	29	5.9	136	27.5	275	55.7	38	7.7	9	1.8	7	1.4
Playgrounds	16	3.2	124	25.1	277	56.1	43	8.7	9	1.8	25	5.1
Sports fields	33	6.7	150	30.4	238	48.2	30	6.1	2	0.4	41	8.3
Ponds	56	11.3	182	36.8	178	36.0	31	6.3	7	1.4	40	8.1
Concourses	15	3.0	82	16.6	287	58.1	73	14.8	27	5.5	10	2.0
Cafeterias	25	5.1	111	22.5	244	49.4	44	8.9	17	3.4	53	10.7
Plantations	4	0.8	56	11.3	249	50.4	108	21.9	65	13.2	12	2.4
Toilets	141	28.5	168	34.0	152	30.8	14	2.8	2	0.4	17	3.4

The effects of the current situation of the park facilities in terms of quality on the growth rate of the urban parks in Konya

The current situations of the plantation and picnic areas which are among the park facilities in terms of quality increase the growth rate of the urban parks in Konya (Table 10).

The effects of the current situation of the park facilities in terms of sufficiency on the growth rate of the urban parks in Konya

The current situations of the plantation and picnic areas which are among the park facilities in terms of sufficiency increase the growth rate of the urban parks in Konya. However, the current situation of the toilet facilities in terms of sufficiency reduces the growth rate of the urban parks in Konya (Table 11).

## Discussion

The urban forests in Turkey meet the requirements of the visitors for picnic activity. The average number of picnic areas in cities is 21. There are 45.616 people on average per each picnic area (Atmiş et al., 2012). Mogan Park was identified to be the most preferred area in terms of picnic activity among all the green spaces of Ankara province (Muderrisoglu et al., 2010). The most preferred recreational activity by the urban open green area users in Turkey is picnic activity. Furthermore, the picnic has become a cultural phenomenon for the Turks. The findings of our study confirm this situation. The picnic activity is held intensively in the urban parks of Konya province. The picnic activity pushes the bearing capacity of parks, causes environmental pollution, and disturbs the other park users. Thus, it is necessary to create opportunities for other recreational activities to be provided by urban parks and carry out the picnic activity in the urban forests close to the city.

Table 6 The evaluation of the park officers

	Availa	ble (%)	None a	vailable (%)	Helpf	iul (%)	Polite/	respectful (%)	Well o	dressed (%)	Undec	cided (%)
Park officer	380	76.9	114	23.1	75	15.2	80	16.2	19	3.8	206	41.7
				494								380
	Very f	ew (%)	Few (%	)	Adequ	uate (%)	Many	(%)	Too n	nany (%)	Undec	cided (%)
Park protection activities	68	13.8	170	34.4	202	40.9	7	1.4	11	2.2	36	7.3
Providing security	80	16.2	182	36.8	173	35.0	8	1.6	5	1.0	46	9.3
Applying the rules of the park	51	10.3	160	32.4	217	43.9	15	3.0	5	1.0	46	9.3
Providing information	116	23.5	168	34.0	149	30.2	5	1.0	4	0.8	52	10.5



Table 7 Information sources related to the parks

	Signifi level 1		Signifi level 2		Signifi level 3	
Newspapers and magazines	45	9.1	58	11.7	116	23.5
Friends and immediate environment	231	46.8	141	28.5	58	11.7
Road signs	8	1.6	26	5.3	67	13.6
Internet	23	4.7	22	4.5	70	14.2
TV and radio	27	5.5	46	9.3	71	14.4
Visits	145	29.4	180	36.4	33	6.7
Maps and brochures	14	2.8	20	4.0	64	13.0
Others	1	0.2	1	0.2	15	3.0

The trees perform significant esthetic, social, and environmental functions in urban areas (Pauleit, 2003). Landscape architects generally design by using local species. Moreover, it is very important that they know the characteristics of exotic species and community structures so that they can design and apply these species (Dunnett and ve Hitchmough, 2007). In the last decade, intensive plantation works were carried out in Konya urban parks. However, in general, exotic species are preferred in these studies. As a result of this, adaptation and maintenance problems arise and even the plants dry out. While a great effort is made to raise the

vegetation of the urban parks to a sufficient level and to increase the growth rate, the principle of sustainability is not considered.

The urban environment provides various recreational opportunities such as parks and urban forests to the residents of the city. Furthermore, people use these areas in different ways. While some of them prefer to go for a walk in the natural environment, the others perform their hobbies such as horse riding, mountain biking, or mushrooming activities. This situation carries the risk of causing a conflict of different interests. Rules and regulations should be made to ensure that recreation areas are used in an environmentally compatible manner (Seeland et al., 2002). The picnic activity is extensively performed in the urban parks of Konya province. This pressure considerably reduced the variety of recreational activities. It is necessary to create opportunities for the park users who are in demand for other recreational activities. Physical activities decrease the risk of certain chronic diseases (Littman et al., 2004). The construction of the facilities especially for people who want to do sport and physical activity is considerably important in terms of human health and life comfort.

In certain urban and rural areas in which the economic conditions have weakened, local administrations have regained a revival by creating recreational activities (Oku and ve Fukamachi, 2006). By increasing the variety of recreational activities, inputs for the employment and tourism also can be increased.

**Table 8** The effects of the current situation of the park facilities in terms of quality on the quality of the urban parks in Konya

	R	R square	Adjusted R square	Std. error of the esting	
Model	0.367	0.135	0.119	0.77970	
	Unstanda coeffic		Standardized coefficients		
	B	Std. error	Beta	t	Sig.
(Constant)	4.074	0.215		18.908	0.000
Parking areas	0.037	0.026	0.066	1.421	0.156
Picnic areas	0.176	0.045	0.189	3.874	0.000*
Playgrounds	0.005	0.039	0.007	0.139	0.890
Sports fields	0.002	0.037	0.003	0.062	0.950
Ponds	0.005	0.033	0.008	0.152	0.879
Concourses	0.114	0.046	0.127	2.479	0.014*
Cafeterias	0.031	0.032	0.046	0.964	0.336
Plantations	0.137	0.042	0.150	3.228	0.001*
Toilets	0.053	0.030	-0.081	1.797	0.073*

Dependent variable: the quality of the urban park \*p<0.05



Table 9 The effects of the current situation of the park facilities in terms of sufficiency on the sufficiency of the urban parks in Konya

	R	R square	Adjusted R square	Std. error of the esting	
Model	0.225	0.051	0.033	0.83109	
	Unstandare coefficie		Standardized coefficients		
	B	Std. error	Beta	t	Sig.
(Constant)	4.094	0.201		20.417	0.000
Parking areas	0.012	0.027	0.021	0.436	0.663
Picnic areas	0.101	0.048	0.102	2.113	0.035*
Playgrounds	0.046	0.043	0.054	1.067	0.287
Sports fields	0.011	0.041	0.016	0.272	0.786
Ponds	-0.012	0.036	-0.018	-0.344	0.731
Concourses	0.055	0.050	0.060	1.110	0.267
Cafeterias	0.029	0.033	0.044	0.877	0.381
Plantations	0.081	0.044	0.093	1.850	0.065*
Toilets	-0.065	0.036	-0.085	-1.782	0.075*

Dependent variable: the sufficiency of the urban park \*p<0.05

## Conclusion

Nowadays, the majority of the world population lives in cities. Since the urban environments are provided with artificial elements, they cause pressure on all creatures living in them. Urban dwellers desire to get away from the urban environment and long for nature in an effort to get rid of cities' pressure. Within the concept of the urban physical environment, most convenient places for urban people to fulfill their longing for nature are urban parks.

It is considerably important to establish urban parks according to the planning and design criteria. Moreover, establishing parks does not meet all requirements of urban dwellers in this aspect. Since parks are dynamic structures, they continuously change with economic, ecological, and sociological conditions of the city they are located in. Local administrations and urban park administrations need to follow this process well and make revisions when needed. These studies are possible with monitoring the park users and revealing their perceptions, preferences, and demands.

In this study conducted on the users of the urban parks in Konya province, the current situation of the urban parks in Konya province was revealed upon certain indicators. The urban parks in the province are quality, sufficient, and well maintained and develop fast.

**Table 10** The effects of the current situation of the park facilities in terms of quality on the growth rate of the urban parks in Konya

Model	R	R square	Adjusted R square	Std. error of the estin	
	0.254	0.065	0.047	0.92940	
	Unstandar coefficie		Standardized coefficients		
	B	Std. error	Beta	<u>t</u>	Sig.
(Constant)	3.522	0.257		13.713	0.000
Parking areas	-0.049	0.031	-0.074	-1.551	0.121
Picnic areas	0.154	0.054	0.145	2.851	0.005*
Playgrounds	-0.020	0.046	-0.022	-0.427	0.670
Sports fields	0.006	0.044	0.008	0.137	0.891
Ponds	0.015	0.040	0.021	0.391	0.696
Concourses	0.010	0.055	0.010	0.182	0.856
Cafeterias	0.001	0.038	0.001	0.024	0.981
Plantations	0.200	0.051	0.191	3.954	0.000*
Toilets	-0.036	0.035	-0.047	-1.009	0.314

Dependent variable: the growth rate of the urban parks \*p<0.05



Table 11 The effects of the current situation of the park facilities in terms of sufficiency on the growth rate of the urban parks in Konya

Model	R	R square	Adjusted R square	Std. error of the esting	
	0.197	0.039	0.021	0.94346	
	Unstandar coefficie		Standardized coefficients		
	B	Std. error	Beta	t	Sig.
(Constant)	2.944	0.228		12.932	0.000
Parking areas	-0.008	0.031	-0.012	-0.247	0.805
Picnic areas	0.057	0.054	0.051	1.058	0.291
Playgrounds	0.047	0.049	0.049	0.969	0.333
Sports fields	-0.031	0.047	-0.038	-0.664	0.507
Ponds	0.012	0.041	0.016	0.301	0.764
Concourses	0.044	0.056	0.042	0.776	0.438
Cafeterias	-0.029	0.038	-0.038	-0.754	0.451
Plantations	0.140	0.050	0.141	2.800	0.005*
Toilets	0.083	0.041	0.096	-2.011	0.045*

Dependent variable: the growth rate of the urban parks \*p<0.05

In this context, it was identified that concourses, playgrounds, picnic areas, and plantation elements in the urban parks were in good condition in terms of quality and sufficiency. However, parking areas are low quality, sports fields are inadequate, and at the same time, toilets and ponds are poor in terms of both quality and sufficiency. It was also observed that the park officers are present at their place of duty; however, they were insufficient in applying and explaining the rules. It is clear that information sources related to the urban parks are generally immediate environment of the park users and road signs, maps, brochures, the Internet, and media tools are insufficient.

According to the regression analysis conducted, picnic areas and plantation works make a significant contribution to the quality and sufficiency of the urban parks in Konya province. On the contrary, toilet facilities have negative effects both on the quality and the sufficiency of the parks. Accordingly, while the plantation works and picnic areas significantly increase the growth rate of the urban parks in Konya province, toilet facilities affect this situation negatively.

The parks are expected to provide service for the demands and needs of people in different age groups, gender, and occupational groups separately. Therefore, it is necessary to consider designs, with priority, that give users peace and confidence and that will enable them to relax, rest, and most importantly be satisfied with that place in the planning. Decisions should be made for planning by putting the critics, reactions, demands of the users about the environment, various observations, studies of monitoring, investigation, etc. into a system.

In this context, the following suggestions are made for the urban parks in Konya province.

- The quality indicator can be increased more with park restoration works and the sufficiency indicator can be increased with new park designs and implementations in accordance with the urban scale
- Park administrations should increase their maintenance works
- The toilet facilities in the parks have to be sufficient and quality
- It is necessary to increase the usage related to the water element and to use materials with higher quality
- The number of open-air sports facilities should be increased
- The sufficiency and quality of the parking areas should be increased
- The quality of the playgrounds and the park officers should be increased
- The facilities that will provide opportunity for recreational activities should be established in the park
- The park officers should be educated and they should be carefully selected from among those who will adapt to the job

## References

Altınçekiç, H., & ve Erdönmez, İ. M. Ö. (2001). The landscape evaluation in terms of user in Ulus Park. *Journal of the* Faculty of Forestry Istanbul University (JFFIU), 51(2), 1–16.



- Anonymous, (2016). http://konya.com.tr/park-alanlari/: [2016].
- Atmiş, E., Günşen, B. H., Yücedağ, C., & ve Lise, W. (2012).
  Status, use and management of urban forests in Turkey.
  SEEFOR (South-east European forestry), 3(2), 69–78.
- Celik, D., Açıksöz, S., (2016). Visual landscape analysis in planning process: the case of Amasra. Oxidation communications 39, No 4-II, 3562–3578 (2016) Overall ecology and sustainable development.
- Chiesura, A. (2004). The role of urban parks for the sustainable city. Landscape and Urban Planning, 68(1), 129–138.
- Cohen, D. A., McKenzie, T. L., Sehgal, A., Williamson, S., Golinelli, D., & ve Lurie, N. (2007). Contribution of public parks to physical activity. *American Journal of Public Health*, 97(3), 509–514.
- Cranz, G. (1991). Four models of municipal park design in the United States, denatured visions: landscape and culture in the twentieth century. New York: Museum of Modern Art.
- Demir, Z., Gültekin, P. G., Özdede, S., Kaya, S. (2016). Assessment of the recreational area potential of Duzce Asar stream. Oxidation communications 39, No 4-II, 3549–3561 (2016) Overall ecology and sustainable development.
- Dunnett, N., ve Hitchmough, J., (2007). The dynamic landscape: design, ecology and management of naturalistic urban planting, Taylor & Francis.
- Dunnett, N., Swanwick, C., ve Woolley, H., (2002). Improving urban parks, play areas and green spaces, London: Department for transport, local government and the regions.
- Evenson, K. R., Wen, F., Golinelli, D., Rodríguez, D. A., ve Cohen, D. A., (2012). Measurement properties of a park use questionnaire, Environment and behavior, 0013916512436421.
- Eymirli, S., (1994). The determination of open green areas of Erzurum City and investigation of urban open green Area PRINCIPLES, Master Thesis, Adana: Çukurova University Institute of Natural and Applied Sciences, Department of Landscape Architecture, Cukurova University Printing House, 91.
- Gobster, P. H. (2002). Managing urban parks for a racially and ethnically diverse clientele, *Leisure Sciences*, 24 (2). *ISBN*, 143-159, 0149–0400.
- Iamtrakul, P., Teknomo, K. ve Hokao, K., (2005). Public park valuation using travel cost method, 1249–1264.
- Littman, A. J., White, E., Kristal, A. R., Patterson, R. E., Satia-Abouta, J., & ve Potter, J. D. (2004). Assessment of a one-page questionnaire on long-term recreational physical activity. *Epidemiology*, 15(1), 105–113.
- Muderrisoglu, H., Oğuz, D., & ve Şensoy, N. (2010). An evaluation of green areas from the point of user satisfaction in Ankara, Turkey: gap analyses method. African Journal of Agricultural Research, 5(10), 1036–1042.
- Nowak, D. J., Crane, D. E., & ve Stevens, J. C. (2006). Air pollution removal by urban trees and shrubs in the United States. *Urban Forestry & Urban Greening*, 4(3), 115–123.
- Oğuz, D., (1998). A research on the usage of Ankara urban parks as a concept of urban park, PhD thesis Ankara University Institute of Natural and Applied Sciences, Department of Landscape Architecture.
- Oku, H., & ve Fukamachi, K. (2006). The differences in scenic perception of forest visitors through their attributes and recreational activity. *Landscape and Urban Planning*, 75(1), 34–42.

- Önder, S., ve Polat, A. T., (2012). The importance of urban opengreen spaces in urban life. The seminar on formation and maintenance of urban landscape areas. Konya Turkey: 73–96.
- Onsekiz, D., & ve Emür, S. H. (2008). Determination of user preferences and evaluation criteria in city parks. *Journal of Social Sciences Institute*, 24, 69–104.
- Ostermann, F. O. (2010). Digital representation of park use and visual analysis of visitor activities. *Computers Environment and Urban Systems*, 34(6), 452–464.
- Page, S., Nielsen, K., & ve Goodenough, R. (1994). Managing urban parks: user perspectives and local leisure needs in the 1990s. Service Industries Journal, 14(2), 216–237.
- Pauleit, S., (2003). Urban street tree plantings: identifying the key requirements, 43–50.
- Polat, A. T. (2011). The visual qualities of the urban area and plants. *Plant, The magazine of landscaping and ornamental plants, 1*(3), 20–22.
- Polat, A. T., ve Güngör, S., (2013). The relations between park's users demographic characteristics and park visits of Konya urban parks. Landscape Architecture 5th Congress-2013 "Transforming Landscape" Adana Türkiye: TMMOB The Chamber of Landscape Architects: 882–993.
- Polat, A. T., & ve Önder, S. (2004). The concept of urban park and a urban park example for Konya City. *Selcuk University Facuty of Agriculture Journal*, 18(34).
- Seeland, K., Moser, K., Scheuthle, H., & ve Kaiser, F. G. (2002). Public acceptance of restrictions imposed on recreational activities in the peri-urban Nature Reserve Sihlwald, Switzerland. Urban Forestry & Urban Greening, 1(1), 49–57.
- Uzun, S., (2005). User satisfaction in rural recreation areas: the example of Bolu Gölcük Forest-recreation area. Bolu: Abant İzzet Baysal University, Master Thesis, Institute of Natural and Applied Sciences, Department of Landscape Architecture.
- Walker, C., (2004). The public value of urban parks, Urban Institute.
- Woolley, H. (2003). Urban open spaces. Abingdon: Taylor & Francis.
- Yaslica, E., 1991, The user participation in public spaces and the user-oriented a research for environmental design in Konak Sokak. Public Space Design and Urban Furnishings Symposium May 15–16, Mimar Sinan University, Facuty of Architecture. Istanbul, Turkey.
- Yaşlıca, E., & ve Tanrıvermiş, E. (1999). The place of landscape design in the urban design process. Urban design: a designs complete symposium (pp. 34–35). İstanbul: Mimar Sinan University, Facuty of Architecture, City and Regional Planning Department.
- Yazicioglu, Y., & ve Erdogan, S. (2004). SPSS application of scientific research methods (pp. 49-50). Ankara: DetayPublishing.
- Yorulmaz, A., (2006). Determine user profiles and expectations of Harikalar Diyari Park, Master Thesis, Ankara University Institute of Natural and Applied Sciences, Department of Landscape Architecture, Ankara, 3–24.
- Yücel, G. F., & ve Yıldızcı, A. C. (2006). Setting quality criteria in city parks. itii journal/a architecture, planning, design, 5(2– 2), 222–232.

