

Evaluation Of Urban Park Design Criteria In The Case Of Taraqi Park (Afghanistan, Herat)

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Abstract:

The objective of this study is to define park design standards, determine the user expectations of the parks and evaluate the defined standards in the case of Taraqi Park in Herat city. On-site detection, observation and survey methods were utilized in the study. The conformity of the park area with international standards was evaluated while general satisfaction as to the park was tried to be determined by virtue of surveys made with the users of the park.

Key words: Urban park, design standards, park site analysis, user satisfaction

Introduction

Urban parks, which are one of the important areas of the urban-fabric, can be defined as multi-purpose public spaces which provide social, economic and environmental benefits within the city (Carmona et al., 2008; Mambretti, 2011). While urban parks serve all ethnic or cultural user groups whether young or old, in group or lonely, rich or poor and male or female, they also provide opportunities as regards aesthetic experience, recreation, relaxation or playing organized sports games, art, music or other community events for the users thereof. When people decide to use the parks, they take into consideration other people who go there and use the park (friends, unsafe people, families, drug dealers, police patrols) more than the physical appearance of parks and their recreational requirements (Altman & Zube, 2012; Myerson, 2006).

The urban parks are considered as a value for cities and inhabitants of the cities. In addition to entertainment, urban parks provide spaces for both active and passive recreation. For example, a change in a person's lifestyle may increase the concern thereof incident to his/her health and fitness. This situation denotes the fact that more people may go to parks for making physical exercise. As such, requests for different recreation/relaxation areas and activities will affect a park's planning and design. On the other hand, urbanization denotes the fact that there will be more people within a city and this situation creates an important amount of demand for open spaces, family activities and programs related to the elderly and children. Urban parks are expected to fulfill all of these different requirements. If urban parks cannot fulfill daily social requirements, this can cause urban parks not to be used and ignored. As such, it is substantial to know the answer of the question how urban parks should be designed in order to fulfill the requirements of the users thereof.



Figure 1.: Parc de la Villette, Paris, 1982-1998 (URL-1)

Materials and methods

2.1. Objective of the study

Defining design standards of parks,

Defining expectations of users: Examining how parks and urban parks make contribution to enhancing the life quality of people living in urban areas, and especially examining the utilization ways in which different people groups utilize urban park types. Providing a reliable description as to how urban parks are utilized through different user categories and how they use the diversity of such areas. Researching what users request from city parks and to what extent they meet such expectations thereof. Examining obstacles which prevent different groups from utilizing city parks and playgrounds and determining basic factors which will encourage them use more.

Examining the design standards and expectations of urban parks in the province of Herat over the example of Taraqi Park.

2.2. Defining the Problem

Urban open spaces like public parks and green spaces are substantial facilities promoting health which play

an increasingly more critical role in terms of making contribution to the sustainable future of cities. At this stage, correct planning, design and maintenance programs with respect to parks have to be conducted. Taraqi Park, located in Herat province, is one of the oldest parks in the central part of the city and attracts the highest number of visitors in all seasons compared to other parks within the province because of its central location and easy access.

The subjects identified as problematic as to surrounding area and inside of Taraqi Park can be stipulated as follows.

- Gradually increasing population in Herat city and uncontrolled urbanization,
- Poor urban design strategies in the surroundings of the city,
- Inappropriate planning as to urban parks and green spaces,
- Lack of facilities or inadequate facilities including a playground for children,
- Existence of undesirable persons and activities like tramps,
- Concerns as to dogs and dog poops,
- Problems regarding security, vandalism and maintenance.

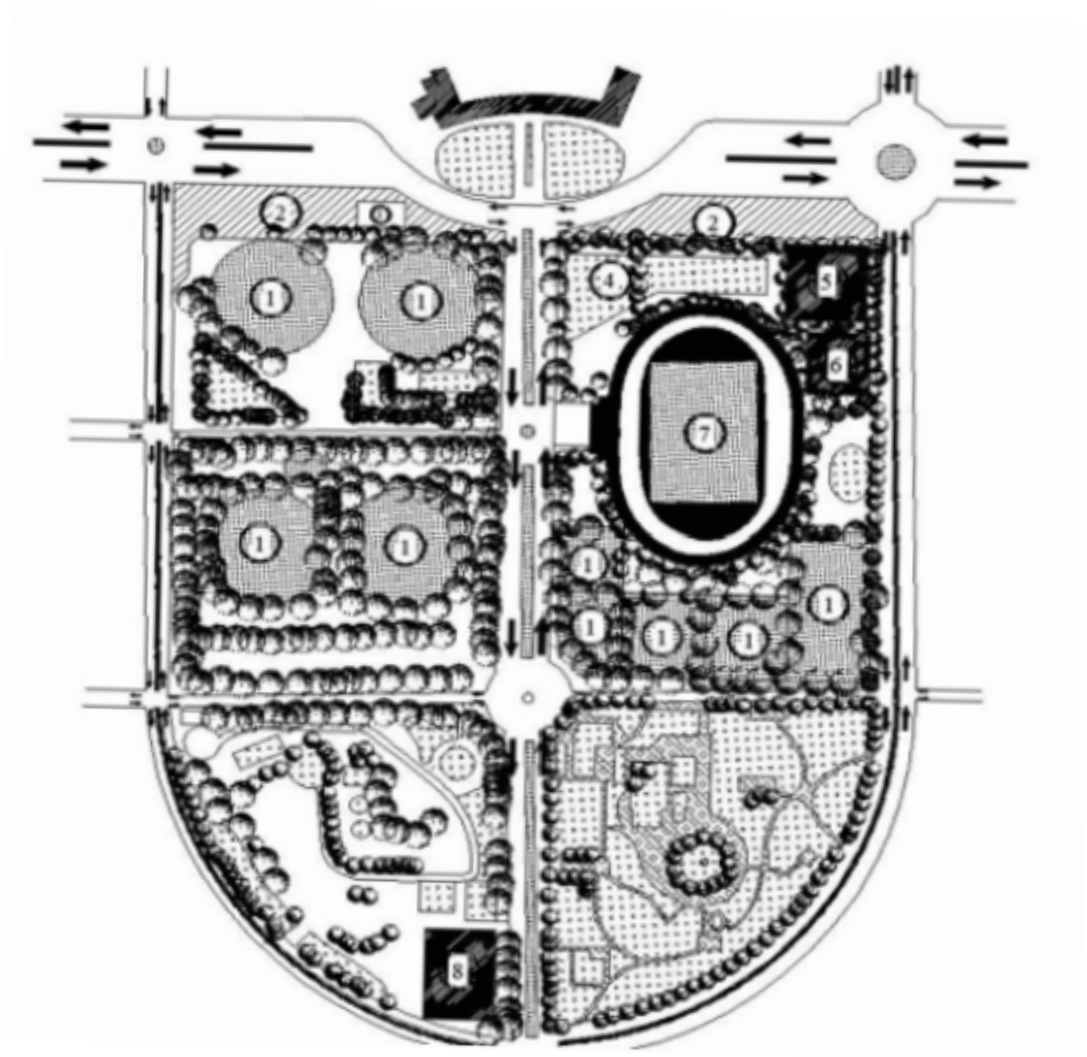


Figure 1. Top View of Taraqi Park - Google Maps : 1. Sports area, 2. Parking lot, 3. Library, 4. Amusement park, 5. Masjid, 6. Restaurant, 7. Stadium, 8. Gym

Much as Taraqi Park is the most visited park of the city, its design, facilities, management and maintenance systems are not adequate according to standard city park rules and regulations. The current situation of the park is examined and preparation of a survey in order to learn the visitors' behavior and expectations is recommended in this part.

2.3. Sample Area

Herat is the second most crowded province of Afghanistan following Kabul, the capital province. Herat is one of the 34 Afghan provinces and constitutes the north-western region of the country with Badghis, Farah and Ghor provinces. Herat is located in the valley of the Harirod River which flows from the central mountains of Afghanistan to

Turkmenistan's Karakum Desert. This region has a semi-arid and continental climate having cold winters and hot summers.

There are approximately twenty public parks which can be utilized for recreation purposes within the Herat urban area. Most of the parks are located in the central area of the city, between the main east-west road and in the 12th, 5th and 8th quarters in the north of the most improved land. Some of the parks in Herat are especially significant in city life, especially in the spring, including the Takht-e Safar Park. Mellat Park is located in a private area in north of 5th quarter. Mellat Park has numerous facilities including a pool, zoo, café, wedding hall and dining palace. Welayat Park and Taraqi Park, located

on the borders between 4th and 6th quarters, constitute the largest green area of the city together hosting the city stadium. Taraqi Park is one of the oldest parks of Herat province, located on the main street of the province. Taraqi Park was established between the years of 1962 and 1965 and it is a central park with a total surface area of 8 hectares (8000m²). Taraqi Park is accepted to be one of the most visited parks within the province due to its easy access and central location and the main football stadium located within the park in addition to several sports facilities and quiet places it has for walking and studying.

2.4. Method

Literature search, on-site determinations, observations and surveys were utilized as data methods in this study.

3.4.1. Field Analysis

Field analysis was carried out with on-site determinations in the park. Objectives of the field work; the current general situation of the park, the deficiencies in the existing facilities and the detection of parking maintenance issues.

3.4.2. Survey Study

A survey is an important tool for expanding participation as well as validation of inputs received by virtue of community response events. A survey provides both the participant (by providing open-ended opportunities in order to provide input to their programs and saying what they have to say) and the planning person or team the maximum flexibility among all planned activities, (surveys can be distributed in many forms and easily, and allows a large number of participants to respond at a very low cost because it is upon request). In this survey, 250 survey forms were utilized both in the internet and in a printed way. The surveys were mostly made in autumn 2018. 209 of the surveys were responded completely while 41 of them were responded partially. The objective of the study was to receive the opinions of various people from different ages, genders and professions. However, due to some limitations, most of the respondents were students of Faculty of Architecture and Design and Faculty of Law and Economics of Herat University.

The questions in the survey were designed to be associated with the most frequently pursued objectives of the thesis as well as the case study.

Order	Question
1	Gender
2	Age
3	Duration of residence in the region
4	How often do you come to this park?
5	What is your aim in coming to this park?
6	What are the issues you observe in the park?
7	What are the activities and uses you are interested in the park?
8	What are the activities and uses you don't like in this park?
9	What activities and uses do you want to be added to the park?
10	What is your general enjoyment level of the park?
11	How can Taraqi Park be developed?

Table 1. Questions of the Survey

The survey comprises two categories with an eye to understand the approaches of people towards parks and green spaces. The first category includes three demographic questions as to gender, age and residence period in the region. The second category comprises open-ended questions including the frequency of the park visit, aim of the park visit, the issues observed in the park, activities and uses which attract the attention of the users, activities the users do not like, activities they desire to be included, general enjoyment level of the park and recommendations for the development of the park.

4. RESULTS

4.1. Results of the Field Analysis

Selection of location: Taraqi Park is located at the center of the province and is easily accessible through public transport. The park was first designed in 1965 and subsequently plan of the facility was changed twice. The facility plan does not have a good layout.

Park Entrances: One of the fundamental issues in Taraqi Park is the lack of a visible and defined border around the park. This issue has rendered entry and exit concepts useless for this park (Figure 3).

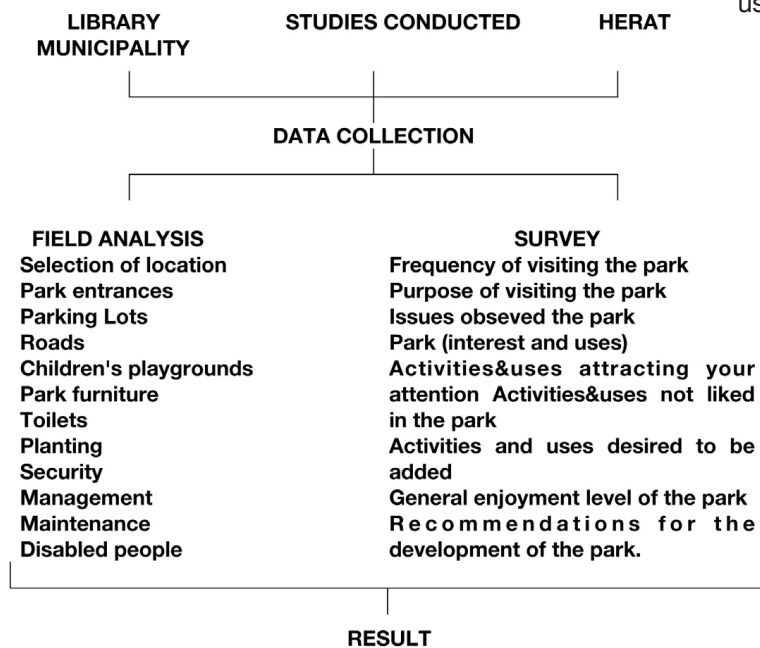


Figure 2. Data Collection and Analysis Chart



Figure 3. East and west of the park entrance

Parking lots: The parking lots of Taraqi Park are not managed well and are inadequate on busy days therefore many people have to use lower roads in order to park their cars within the park (Figure 4).



Figure 4. Parking lots in the south and north of the park

Roads: The main road and the secondary roads within the park are used as a transit road by drivers who do not visit the park and who only make a u-turn in order to decrease the distance. Parking roads can be used with payment with a view to prevent unwanted traffic on parking roads as a solution to this issue. There are no traffic signs to direct traffic and speed limiter elements on the roads of the park (Figure 5).



Figure 5. Traffic roads

Taraqi Park's pedestrian ways are designed to provide good connections to different parts. The roads are mostly built of natural stone and there are concrete walkways in some parts of the park. The biggest connection issue of Taraqi Park is that the park is separated by a road which creates problems for people and which is dangerous for children crossing the road in order to go to the other side of the park. The plants along the road side are rather well planned and designed. Lighting along the roads is not sufficient while most parts of the park do not have lighting poles (Figure 6).



Figure 6. Natural Stone pavement

The paths within Taraqi Park are well designed in general. The connections between different parts of the park are good, however there are some design errors observed both in the tracks and links. The tracks are generally constructed of natural stone and the connections in some parts are made of concrete. The width of the paths is insufficient in some parts and especially in the eastern part of the park. Furthermore, use of bicycles may pose danger on pathways inasmuch as there is no bicycle path. The plants along the side of the road are relatively well planned and designed. Lighting along the roads is not enough and most places do not have lighting poles.



Figure 7. Left: pebble and stone material way, right: masonry stone material way

Children Playgrounds: There is a playground on the eastern part of the park (Figure 8). The playground cannot meet visitor demands inasmuch as it has small and simple equipments. The equipments are not in compliance with the standards. The area is uncared and not suitable for the usage of disabled people.



Figure 8. Views from playground

Park Furniture: The location selection and design features of park furniture of Taraqi Park were observed to be insufficient in general. The seating units in the park are insufficient compared to the number of visitors during intensive visiting times. Their selection of location and designs are insufficient. Some of the users of the park sit on the grass areas inasmuch as the number of benches is insufficient (Figure 9).



Figure 9. Seating equipments

The location and design of the trash bins are not in compliance with the standards (Figure 10).



Figure 10. Trash bins

The lighting system is not balanced well. Sidewalk lighting standards are not taken into account in placement of the street lamps. There is no lighting at the entrance and exit points (Figure 11).



Figure 11. Lighting equipments

There is no marking system in the park in general. There are no signposts along the entrances and exits, roads and hiking trails. There is not a water element within Taraqi Park. Toilets: There are two quite uncared toilets in the park (Figure 12).



Figure 12. Toilet

Plantation: The vegetative landscape of the park is in good condition. Plants with different sizes, forms, textures and colors are also used.



Figure 13. Views from park landscape

Security: Absence of signposts, ground designs of the playgrounds and poor lighting system adversely affect the security perception as regards the park.

Management: Herat Municipality's Green Areas and Parks (Verdure) branch manage the park directly. There is no central management system to include personnel management, waste management, statistics management (to analyze the number of visitors) and parking lot management within the park.

Maintenance: There is not a specific system for maintenance of the park and maintenance of the facilities is not performed within a certain period of time. The irrigation system of the park is the traditional irrigation system. The issue with this system is that a large amount of water is wasted and irrigation effectiveness is not uniform in all parts of the irrigated areas.

Disabled people: The park is not designed to be accessible for disabled people: no toilet exists for disabled people; no parking exists; no ramps for disabled people on the

roads, no chairs or seats for the disabled and playground for disabled people exist.

4.2. Results of the survey

Demographic characteristics of those who were included in the survey are provided in Table 3.2. Most of those who were included in the survey were male (58.9%, males and 41.1 % female). In general, most of the users (83%, 5) are between the ages of 20 and 40y; it was determined that only 2.9% of the visitors are between the ages of 15 and 20 while the majority of the park users live in Herat since 6-20 years.

Question	Frequency	Percent (%)
Gender		
Male	157	62.8
Female	93	37.2
Age		
15-20	7	2.9
20-29	116	46.5
30-39	39	15.4
40-49	54	21.6
50-59	29	7.11
60> +	5	1.9
Residence Period		
1-3	74	29.1
3-6	35	14.0
6-10	54	21.8
10-20	53	21.2
20 years and more	34	13.9
Total	250	

Table 2. Gender, age and residence period of the respondents

Visiting Frequency of the Park: It was found that 37% of the respondents visited the parks “several times a week” or “almost every day” and 14% of the respondents frequently visited the Taraqi Park (Figure 14).

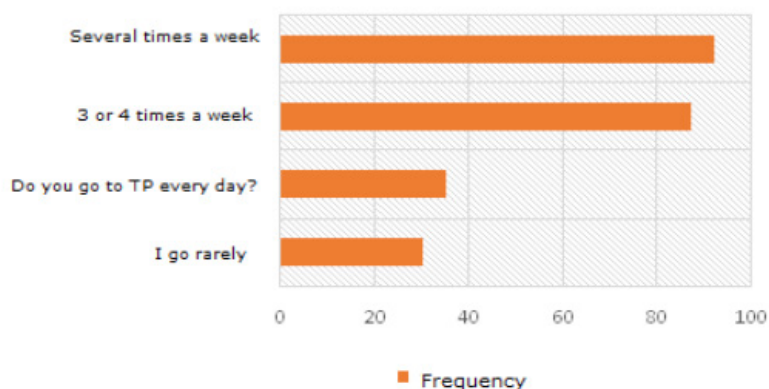


Figure 14. Frequency of Taraqi Park visits

Purpose of Visiting the Park:

Ranking of the visiting purpose of the visitors of Taraqi Park is as follows: “studying and walking “(42%); “making sports” (25%); “meeting with friends” (15%) and “its being the best and closest place to my home” (14%) (Figure 15). These results showed that study and walking, socializing and recreation are the main purposes of visiting the city's Taraqi Park.

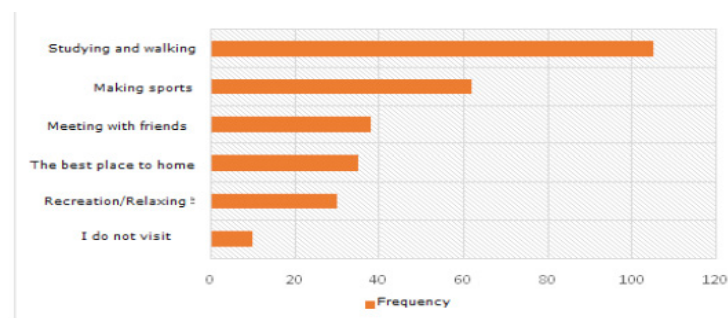


Figure 15. Main purpose of visiting the Taraqi Park

Problems observed in Taraqi Park:

It was determined that 56% of the users considered “management and maintenance” while 21% of the users considered “insufficient facilities” and 15% of the users considered “tramps” and 13% of the users considered “not having a special place for families or women” as problems.

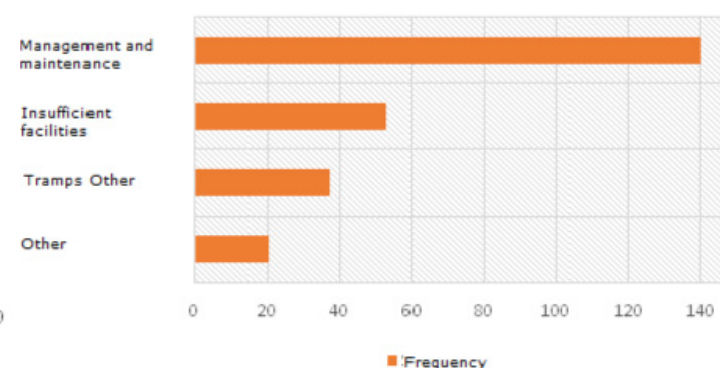


Figure 16. Problems in the Taraqi Park

Activities and uses you are interested in Taraqi Park:

The reasons for frequent use of Taraqi Park are determined as “its central location and proximity to home” (45%); “sports grounds” (30%); “its being a quiet place to study” (17%) and “its having a better environment than others park”(8%) (Figure 4.16). This result revealed the significance of ease in terms of distance and time when using parks.

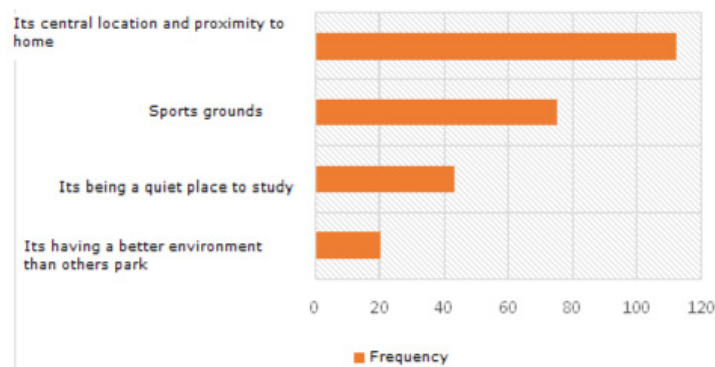


Figure 17. Reasons of using Taraqi Park frequently

Activities & uses not liked in Taraqi Park:

Activities & uses not liked in the park by users include “being disturbed by annoying people” (32%); “inappropriate management” (2%); “no separate facilities for women”(18%); “ not having facilities for children's hobbies” (10%); and other reasons (6%).

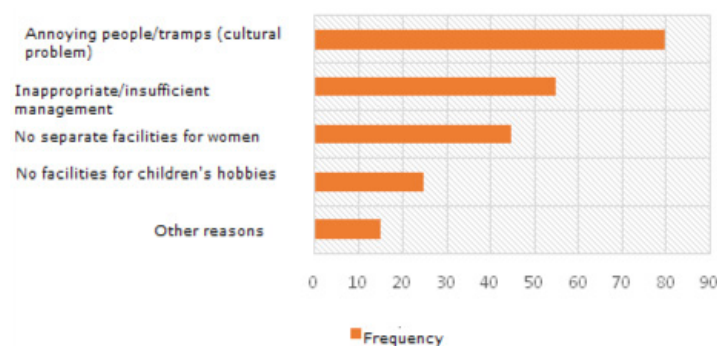


Figure 18. Disliked activities in the park

Activities and uses desired to be added to the park:

The most demanded park facility was determined as “separate facilities for women” at the rate of 37%. Other facilities to be added were listed as “private municipality”

at the rate of 22%, followed by “children playground facilities at the rate of 16%, and “brand cafes” at the rate of 10%. Other failures of the park were as to improvement of the existing playgrounds, traffic management, parking areas and illuminating the pedestrian roads.

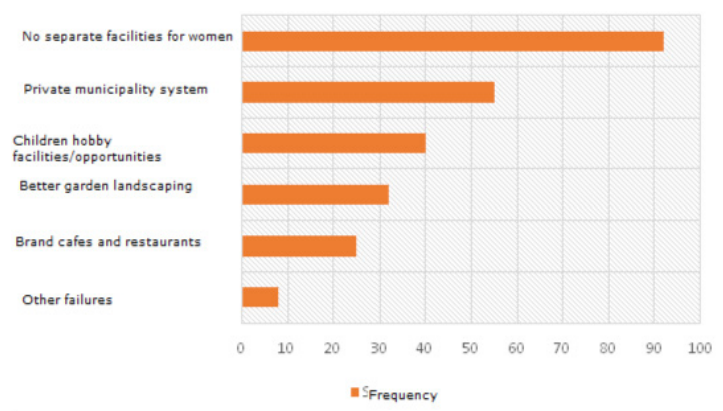


Figure 19. Activities and uses desired to be added to the park

General Enjoyment Level of the Park:

The majority of the respondents (55%) considered the park to be inadequate in terms of cleanliness and toilets. The park has only two toilet facilities; there are no separate women's toilets and rule plates (Table 3). Only 22% of the respondents evaluated the park as medium in terms of the aforementioned facilities, while 15% (most male participants) evaluated the park as good. These results have revealed the fact that overall performance of the management and maintenance system is unacceptable according to the visitors and that it has to be revised.

Overall Enjoyment	Frequency	Percent (%)
Bad	137	55
Medium	55	22
Good	38	15.5
Very good	13	5.5
No answer	5	2

Table 3. Evaluation of the park

How can Taraqi Park be improved:

43 % of the participants stated that the park should be redesigned while 27.5% them mentioned that operation of the park should be transferred to the private sector.

	Frequency	Percent (%)
Redesign of the park	107	43
Transfer to private sector	69	27.5
Modernization of existing facilities	30	12
Increasing taxes and transparent use of park revenues	33	13.5
Other	11	4.5

Table 4. Ways of improving the park

5. Discussion and recommendations

Urban parks offer a suitable environment for a wide range of recreational and relaxation activities in addition to enhancing the image and perceived value of the society. The design and management of the Park should consider the recreation needs of all target groups planned to be served (Chiesura, 2004). Urban parks can serve the requirements and desires of many subgroups of all kinds of people and populations: young and old, rich and poor, male and female, athletic or non-athletic people as well as all ethnic and cultural groups. This broad attraction gives urban parks social, behavioral and physical importance in efforts to enhance the urban life quality (Hayward, 1989).

This study has determined the urban park and green space demands of users and their overall assessments against these parks and green spaces by focusing on Taraqi Park located at the city center in order to provide relevant information for improving the quality of life and creating urban park strategies in future.

It was observed that the city improvement plans and programs in the city were inadequate as a result of the study. Herat city requires more recreational space in addition to insufficient green areas due to its growing population. The people require accessible, safe and well-maintained parking areas.

Most of the participants preferred the parks in their vicinity and stated that the vicinity to their house was a factor in their visiting the park. City parks have to include physical activities, small activity areas, separate facilities for women and children's playgrounds and fulfillment of various social

needs and functions, including recreational areas. Taraqi Park is located at the city center with easy access by virtue of public transport, however the park is not well designed and built.

Users of the Taraqi Park have shown studying, relaxation and sport as their reasons for visiting the park. This result can be used as a reference in future researches for determining the most required facilities in existing urban parks and take into consideration these facts in newly designed parks.

Users required separate places for families and women and playgrounds for children. It is very hard to build various parks to meet the requirements of citizens in small and medium-sized cities due to financial limitations. As such, the relevant authority should take into consideration the presence of necessary facilities in the existing parks in the city and include some of such facilities in the mini parks used by the society.

Missing and insufficient issues especially determined by the users in a park can be listed as follows.

Improper management of the park,

Its being designed not to meet the needs of the social structure; for example, most people are uncomfortable using mixed-sex facilities,

Lack of playground or facilities for children,

Presence of annoying persons in the recreation area and parks whom the police should check,

Neglecting toilets especially for women.

Field survey results as to Taraqi Park are provided in summary in Table 5.1. and as shown the park has received very low scores in terms of maintenance system and it has been determined that ,except for plants, there is no other contractor or a maintenance service system will make the maintenance of the facilities in the park .

The design of the park, as a result of field research, is the second criterion described in Table 5.1. and the park's design is poor according to the design rules of standard parks and the park does not comply with the standard design rules for urban parks. Entrances, exits, lighting elements, toilets, facilities for the disabled and parking lots are the most important facilities that are incomplete or not designed according to the standards.

The location of the park is quite good, it is located in the central part of the city and can be reached easily by virtue of public transport. However, as shown in Table 5.1., there should be many facilities which are not currently in the park or which are not well designed. Changing and redesigning parking lots, playgrounds, lighting elements and toilets are important issues which need to be considered.

	LOCATION	DESIGN	MAINTENANCE
Field Selection	-	X	X
Parking lot	X	X	X
Park entrance	-	X	X
Way	-	-	X
Play ground	X	X	X
Park Furniture			
Seating elements	-	X	X
Waste bins	X	X	X
Lighting elements	-	-	X
Signboards	X	X	X
Fountains	X	X	X
Toilet	X	X	X
Planting	-	-	-
Facilities for the disabled	X	X	X

Table 5. Results of field research

As such, these results can be taken into consideration in future park planning and management with an eye to maximize the quality of life in cities. However, because the statistics utilized in the study area are limited and the sample size which is analyzed is not big, current research results should be generalized only subsequent to a larger study carried out in order to understand the general approach of Herat fellow citizens to urban parks and green areas compared to citizens of other cities. Improving the park areas by taking into account the requirements and demands of the users and finding solutions to issues will increase the satisfaction level as regards the urban parks and the number of visitors who visit these parks. A comprehensive study has to be conducted on status of urban parks in Herat in order to help better planning of improvements as regards urban parks and on satisfaction and thoughts of citizens as to urban parks and green spaces in different regions in addition with a view to obtain the problems and achieve the objectives for this purpose.

RESOURCES

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