

Evaluation of Urban Park Design Criterias in the Case of Taraqi Park, Herat, Afghanistan

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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 questionnaire survey methods were utilized in the study. The conformity of the park area with international standards were evaluated while general satisfaction towards the park was tried to be determined by virtue of surveys made with the users of the park. The results revealed that the current status of the park was poor, design and management of the park needs urgent improvements. Taraqi Park is the most visited park of the city in which the overall design of the park, facilities, management and maintenance systems are observed inadequate according to standards, rules and regulations of urban parks.

Keywords: *Urban Park, Design standards, Park site analysis, User satisfaction*

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1 Introduction

Urban parks, which are one of the important spaces in the urban-fabric, can be defined as multi-purpose public spaces which provide social, economic and environmental benefits within the city^[1, 2]. 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. Park visitors consider other people who visit the park (friends, unsafe people, families, drug dealers, and police patrols) more than the physical appearance of parks and their recreational requirements^[3, 4].

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 creates an important amount of demand for open spaces, family activities and programs related to the elderly and children or in general to everyone living in the city. Urban parks are expected to fulfill all of these different requirements. Any urban park which does not fulfill daily social requirements, will be ignored and will not have enough visitors. 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.

2 Literature review

Nigel Dunnett, Carys Swanwick and Helen Woolley - May, conducted a study to evaluate the importance of urban green space for the future of England's towns and cities where 15 homegrown case studies were provided to be examined. The findings of earlier studies reveals and explains the role that urban green space play in

the habitual life of urban occupiers, the influence of the recreational spaces in urban areas and the change it brings to the quality of life in the cities. Researches figured out that no other public urban facility can have great role in success of a development in the urban area the much that urban green spaces have. In fact urban green spaces play a facilitator role for a broader community edges. By random involvement of the society advantages it is said that nothing would be acceptable in urban areas without considering green spaces in the design. Even the social community and economic role vigor fine afar the normal, but somehow there are some dogmatic views for influence of urban green space for cities future and, an advanced profile importance should be given in endorsing for urban green space and its funding case in both local and national levels^[5].

Sirong Liu - Wuhan, China - 2012 evaluated design methods and measures of the regional features of City Park in China, he used the people-oriented theory and principles methodology. The design of regional city parks are initially regional, which primarily include natural conditions, topography, the native plants of the related region, where the significant aspect is the region's cultural features, that consist traditional garden, architecture, art, ancient allusion, folk tale and customs^[6].

David Ellis & Ryan Schwartz-July 2016 researched on the Roles of an Urban Parks System in Canada by studying the literature review on direct and indirect roles and benefits of urban parks on the community around^[7]. It clarifies that urban park systems are the main element and perilous properties which play a significant role in different range of areas and are much more important than green space. The study suggest that government departments can benefit from having different types of well designed city parks system.

The paper investigates the importance and the role of the urban park systems in the society to define better the value that the parks can add to a society. Urban park system which includes all parks that are managed and maintained by municipality play a critical role in having better community by influencing on following sectors: Culture; recreation; community development; heritage; economic development; health and wellness; natural environment; education; and transportation. These significant roles of the urban parks system have changed and became more topic of discussion over time as the population graph of the cities has been increasing

permanently. Considering the direct and indirect benefits of the urban park system in the society, urban parks system should be considered as key element of each community.

The urban park system, or an individual park should be designed proactive and the best use of land law should be taken into consideration. In addition, changing the brownfield areas to green park areas, establishing new parks according to the needs of new developments, and to maintain the existing urban park system are the most important factors that should be analyzed and considered while planning an urban area.

Turan et al. (2016), conducted a participatory approach to study the urban park design in Rize Municipality Park. The research found the area to be unappealing, inadequate and unattractive before establishing the Rize municipality Park, but it has changed into a pleasant, attractive and appropriate space with assortment of deeds for public requirement and uses after Rize municipality Park implementation^[8].

Ter (2011) studied the related literature and conducted a questionnaire survey to analyze the quality criteria of urban parks in the city. The paper considers the connection of environment and individuals is denied where the construction concentration is only focused which clog the traffic. Urban parks have central role in growing excellence in urban life by providing a natural environment and valuation of this entire hinge on contact of users and environment which can be influenced by mental, emotional and sensorial relationship, such as stress-free access to the park as a passenger of bicycle, public and private transportation vehicles, finding the parks throw easy navigation and be located. Providing many routes for users and making an environment as they expect which will attract a wide range of users is aimed, such as; relax and reestablish interaction with environment for visitors can be counted as an opportunity that raises the desirability of the places which guarantees compassion to superiority in the place. It has been predicted in urban parks design that chance for elective and social activities should be provided like renovation, entertainment, participation in amusing activity. Some complementary elements should be formed in the park for better attraction of users and usage of every area of the park to interact with other users^[9]. A combined behavior observations with GIS mapping method was done by Golicnika and Thompson to generate experiential records of environment-behavior connections which were connected to three-

dimensional patterns^[10]. It was determined that usage of such method does not shape the environment per se and also not the adequate success of dimension in expected usage. Assured configurations are there for inert use of parks, such as casual sitting in grass areas that can direct the designers to make better spaces which suggest eye-catching and several prospects usage of persons or groups and different range of uses. This study has discovered that weather the passive or active expenditure, a tiniest extra space should be organized to permit suitable precincts. Ren et. al. (2013) studied the relationship between urban park characteristics and park cool island intensity using remote sensing data collection and field measurement. They studied 33 local case studies as the basis of related literature^[11]. This primarily study determines that urban parks can generate Park Cool Island special effects. Size of urban park is an essential feature for extenuating Urban Heat Island, where the rise in size of urban parks are an operative quantity to mitigate Urban Heat Island, the connection in summer among Park Cooling Island and urban park was more than autumn. Where the Park Cool Island strength diagonally seasons and the cooling results of park in summer was upper than in autumn, therefore urban park features played significant role in mitigation urban heat landmasses in different seasons. Gavin McCormack n, et al. Canada - 03 March, 2010 studied characteristics of urban parks associated with park use and physical activities, where it was determined by him that qualities together with safety, aesthetics, amenities, maintenance, and proximity are significant for boosting park use^[12]. Acuties of the social environment entangle inseparably with observations of the physical environment, therefore both qualitative and quantitative methods deliver valuable data for understanding the characteristics of urban parks with park use and physical activities.

3 Materials and methods

3.1 Objective

There are three main objective of the study. First defining design standards of parks, second defining expectations of users (Examining how parks and urban parks make contribution to enhancing the life quality of people living in urban areas, and the third, 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), third examining the design standards and expectations of urban parks in the province of Herat over the example of Taraqi Park.

3.2 Defining the problem

Urban open spaces like public parks and green spaces are substantial facilities promoting health, environmental, and economical benefits play an increasingly more critical role in terms of contributing to the sustainable future of cities. At this stage, correct planning, design and maintenance programs with respect to parks should have been conducted. 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.

3.3 Sample area

Herat is the second most crowded province of Afghanistan following Kabul, the capital province. 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. Taraqi Park was established between the years of 1962 and 1965 and it is a central park with a total surface area of 80000m². 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.



Figure 1. Top View of Taraqi Park: 1.Sport Field; 2. Parking; 3. Library; 4. Amusement Park; 5. Mosque; 6. Restaurant; 7. Stadium; 8. Gymnasium^[22]

3.4 Method

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

Field Study

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.

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 research, 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.

Table 1. Questions of the Survey

Question
Gender
Age
Duration of residence in the region
How often do you come to this park?
What is your aim in coming to this park?
What are the issues you observe in the park?
What are the activities and uses you are interested in the park?
What are the activities and uses you don't like in this park?
What activities and uses do you want to be added to the park?
What is your general enjoyment level of the park?
How can Taraqi Park be developed?

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

In order to determine how well the park complies with international design standards, the checklist created as a result of the literature survey was tested with on-site determinations and observations (Table 2).

Table 2. Site analysis results for Taraqi Park^[13-19, 23, 24]

TARAQI PARK FEATURES	Current Condition Analysis
LOCATION	
Is the park at a central point around the neighborhood?	✓
Is the park accessible by public transport?	✓
Is there a bus stop near the park?	✓
PARK ENTRANCE (Figure 2)	
Is the entrance design encouraging entry for users?	✗
Is there multiple access/egress points along the park perimeter?	✓
Are vehicles and pedestrian entrances separated from the park entrance?	✗
Are there a seating areas at the entrance to the park?	✗
PARKING (Figure 3)	
Is the parking area close to the parking entrance (max. 45m)?	✓
Are there parking for bicycles?	✗
Are there disabled parking?	✗
Is the minimum width of an accessible parking space 3.60m (the recommended width is 3.90m)	✗
Is there an access aisle 1.20m wide located between two ordinary parking spaces?	✗
Is there at least one accessible parking space should be provided in every parking facility for parking facilities of less than 50 cars?	✗
Is the slope of parking ramp not exceed 1:20?	✗
WAYS (Figure 4,5,6,7)	

Are vehicles and pedestrian roads separated?	✓
Is the width of the vehicle roads at least 2.5m?	✓
Is the width of the roads and external pedestrian paths at least 1.8m?	✓
Are pedestrian routes connected to destinations?	✓
Does the signage at entrances provide clear orientation to major points of interest such as the location of public toilets, safe routes, park activities and adjacent public transport.	✗
Is the surface of an accessible pathway smooth, continuous, non-slip and even?	✓
Is there a 2.1 m clearance area from the ground along the roads?	✗
Is the one-way ramp width 90 cm?	✗
Is the bidirectional ramp width 150 cm?	✗
Are the handrails on ramps mounted between 865 mm and 965 mm?	✗
Are all routes free of protruding obstacles, overhanging signs, branches etc., in the walking area, to aid persons with visual limitations?	✓
Ramps must be no steeper than 1:12?	✗
Does individual ramp sections no longer than 9 m?	✗
Are there manholes, drains and gratings placed outside the pedestrian pathway?	✓
PLAYGROUND AREAS (Figure 8)	
Are there seating areas for parents park perimeter?	✓
Is the playground separated from other areas by bushes or benches?	✓
Are the 0-5 and 6-14 age playgrounds separated?	✗
Is there a sand for play opportunities?	✗
Is there a buffer zone around play equipments?	✓
Are wooden materials preferably used in play equipment?	✗
Have you used mostly deciduous plants around the playground?	✓
Are moving equipment, such as swings and merry-go-rounds, located toward a corner, side, or edge of the play area?	✓
Are slides exits located in an uncongested area of the playground?	✓
Concrete, asphalt, or other hard surfaces should never be directly under playground equipment.	✗
SPORTS FIELD	
A north-south orientation along the long axis is preferred.	✓
Are the sports fields set back at least 20 metres from any property lines or adjacent facilities?	✓
Are the sport areas at least 10 metres from any plantings?	✗
Are the sport areas drainage cross-slopes should not exceed 2%?	✓
PARK FURNITURE	
<i>Seating Equipments</i> (Figure 9)	
Are the seating elements located in places where heavily pedestrian usage?	✓
Are there seatings in shaded areas?	✗
Are there benches in planted areas facing pleasing views of open green areas?	✓
Are the resting facilities provided at regular intervals between 100.00 m and 200.00 m?	✗
Is the length of seating element 60cm per person?	✓
Are the seating elements placed 60cm inside the road?	✓
Is the height of the seating element 42.5cm?	✓
Is the depth of seating element 35-40 cm?	✓
Is the backrest of seating element 50cm?	✓
Are there arm rests on the seating element?	✓
Are there some seating accommodations placed close to public toilets, telephones, etc.?	✗
<i>Waste receptacles</i> (Figure 10)	
Should bins be located at entry points and/or near activity areas?	✓

Is there garbage receptacle every 500 meters along arterial pathway?	×
Are waste bins placed 30cm inside the road?	×
Are waste bins located every 30m?	×
Are the height of waste bins 90cm?	×
Is the opening of the trash bin at least 25cm?	✓
Are waste receptacles securely mounted in busy locations?	×
<u>Signing</u>	
Does the signage at entrances provide clear orientation to major points of interest such as the location of public toilets, safe routes, park activities and adjacent public transport?	×
Are there signs at the decision points (entrances, activity areas, road intersections)?	×
Is there a sign identifying the park entrance?	✓
Are there warning signs around the park?	×
Can the signs be read at a distance of at least 20m?	✓
Do the park maps highlight the main parts of the park and the roads?	×
Is the signage designed using highly visible and contrasting colours (e.g., white or yellow on a black, charcoal, or other dark background such as brown, dark blue, dark green, or purple)?	✓
Are there identification signs used to identify parks to those passing by on surrounding roads, or to identify specific pedestrian entrance points where these exist?	×
Are there directional signs located at decision points on routes through the park and where directions to park facilities are not readily visible?	×
Is there information signs used for regulatory information or notices?	×
<u>Lighting</u> (Figure 11)	
Are light fixtures mounted high and vandal-resistant?	✓
Are lighting poles placed so that plants do not cover poles?	✓
Are overhead light fixtures mounted on standards that ensure clear headroom of 2030 mm is available?	✓
<u>Fountains</u>	
Is there a fountain for every 1000m ² ?	×
Are fountains at least 85 cm high for children with disabilities?	×
Are the drinking fountain spouts located at an approximate height of 0.90 m?	×
Are the drinking fountain spouts located to wheelchair users at approximately 0.85 m?	×
<u>Bollard</u>	
Are bollards painted in a contrasting colour or in coloured stripes?	×
Is barrier height between 0.75m and 0.95m?	×
Is the distance between guiding posts around 1.20m?	×
<u>WC</u> (Figure 12)	
Are there unisex/family washroom every building for public use?	×
PLANTING (Figure 13)	
Are deciduous and evergreen plants used together?	✓
Is there a flat area around the group plants?	✓
Are spiny hard-leaved plant species avoided in spaces designed for active and passive use, adjacent to pedestrian paths?	✓
Do use low shrubs and groundcover planting that do not interrupt sight lines or create possible 'hiding' spots?	✓
Is there overhanging vegetation clipped to a minimum clear height of 2.00m?	✓
Are trees setback a minimum of 2 metres along routes?	✓
Are low plantings not exceeding 0.5 metres in height be planted along routes?	✓
Are conifers placed 4.5m away from pathway edges?	×
Are deciduous trees placed 1.5m away from pathway edges?	✓
SAFETY	

Is there a security check around the park?	✗
Do the maintain clear sight lines across passive and active use areas?	✓
Are there seating elements on the main road axles to monitor the passers-by?	✗
MANAGEMENT	
Is there a defined park management?	✗
Are there shadow areas around the park?	✓
MAINTENANCE	
Are there vandalism sign around the park?	✗
Are there uniformed care workers?	✗
Are garbages cleaned regularly?	✗
Are plants pruned?	✗
DISABILITY	
Are there ramps on the roads?	✗
Are the ramp slopes less than 8.33%?	✗
Are there resting spaces with benches allowing a minimum of 1.20 m of adjoining space for a wheelchair?	✗

Taraqı Park is located easily accessible by using public transportation. One of the main problems in Taraqı Park is that the park is not fenced or enclosed by walls around its perimeter. This problem made the entrance and exit concepts useless for this park. Recently the municipality started fencing of the park and only one part of the park is enclosed that entrance for that part (Figure 2). TP the parking is not designed according to number of users and standard parking rules (Figure 3). Walkways inside Taraqı Park are designed in a good way that creates good connectivity to the different segments. The ways are mostly constructed of natural stone, and in some parts of the park there are concrete walkways (Figure 4). The biggest connectivity problem of Taraqı Park is that the park is separated in the middle by a roadway, which creates problems for peoples and is dangerous for children passing the road to go to the other side of the park. In TP the connections designs: Doesn't have separate lanes for bicycles; no signage for pedestrians; lightings along connections are poor in most parts of the park

There is one main road way which separates the park into two segments, and several sub ways which allows entrance from different parts along the perimeter of the park (Figure 5). TP roadways do not fulfill the standard design requirements for roadway design of urban parks. The biggest problem in TP roadways is that the main roadway in TP which divides the TP into two parts is open on public traffic, this makes the park unsafe and crowded. The pedestrian walkways are not marked, and there is no specified area for pedestrians to cross the street. There are no signage for pedestrians along

the roads and streets. There are no speed limits and speed control devices along the streets in TP. 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 6). Furthermore, use of bicycles may pose danger on pathways in as much 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. In Taraqı Park there are lots of sports play areas including the mains football stadium and the biggest gymnasium of the city. There are two small tennis courts, three volleyball playgrounds, two cricket practice nets, and ping pong courts. The only facilities which are maintained and managed better than other facilities in the park are sport facilities. The park is very poor in case of children play areas. There is only one small play area for the children (Figure 8). The site furnishing of Taraqı Park is observed poor. There are several deficiencies in design, maintenance and placement of the site elements in TP. In TP there are two types of seating units: fixed wooden seating units and concrete seating units. The wooden seating units are all single units, and most of them without canopy (Figure 9). These seating units are not enough for the number of visitors and also because of no sun protector they are not usable during the day, but when sun goes

off. Concrete seating units have the same problem. The units are not maintained and most of them are not usable anymore. The seating units design in TP needs to be revised according to design standards for urban parks furniture and users behavior. The units need to be maintained continuously. The poor maintenance of the existing units is the important reason for people sitting in the grass instead of seating units. The number of receptacles are not enough according to users and area. The receptacles are open tops, which needs on time evacuation, and are not evacuated in TP on time. The receptacles are not maintained well. Waste receptacles should be highly visible and accessible, where in TP the receptacles are not placed enough in each segment, and also not maintained well (Figure 10). In TP the lighting system is general observed fair. In some segments of the park there is no lighting at all. The intra connection streets lighting are not well balanced. There are no lighting poles at entrances to guide people to the door. 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). TP is observed very poor in case of signage in all parts. There are no clear signage system at all in the park, and most importantly following signage are missing. 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. There are two quite uncared toilets in the park (Figure 12). There are no female restrooms in the park. In TP there are only two restroom services. The maintenance of the restrooms are very poor, and almost no maintenance. The number of the restrooms are not enough according to the number of visitors. The plantation of the park is observed fair, but several problems noted in planting observation of the park (Figure 13). Leaving the plants in the natural state had

brought to the fore the lack of maintenance problem, and therefore the permeability and legibility of the park were decreased. The irrigation system of the park is the traditional irrigation system. The problem with this system is that a large amount of water is wasted and the effectiveness of irrigation is not equal in all parts of the irrigated area.

Safety features in Taraqi Park are not considered well in the design. The signage, floor design for play areas, pedestrian walkways, lighting system are the main parts that are evaluated poor in being safe. Absence of signposts, ground designs of the playgrounds and poor lighting system adversely affect the security perception as regards the park. TP as whole and each of its functional lines of service were evaluated and assessed. TP is being managed directly by Green spaces and parks (Verdure) department of the Herat municipality. There is no update, well established management system of management for the park to measure the satisfaction level of the users, work for the better of the services, and provide management strategies to have better recreational area. The park management doesn't have good financial system, where even the annual income and maintenance amount is not clear. Herat municipality is the responsible administration for maintenance of TP. The municipality does not have maintenance schedule for TP, there is no listed items history maintained before. In general there is no well-established maintenance system for TP. The municipality maintains the facility after months it stops functioning.

Taraqi park is observed very poor in being accessible to disabled people. Followings are the observations during the survey of the park for being accessible for disabled: the park is not designed accessible for disability at all; no restroom facilities for disabled; no parking facility; no ramps for disabled to climb; no chairs or seating for disabled (Table 5).



Figure 2. East and west of the park entrance



Figure 3. Parking lots in the south and north of the park



Figure 4. Left: Stone Masonry Pathways; right: Main roadways



Figure 5. Left: East West Roadway; right: Northern Roadway



Figure 6. Traffic roads



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



Figure 8. Views from playground



Figure 9. Seating equipments

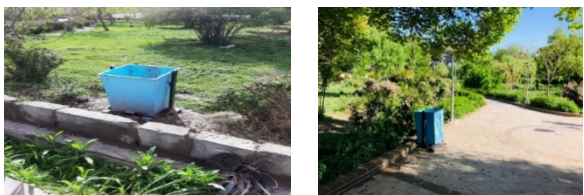


Figure 10. Trash bins

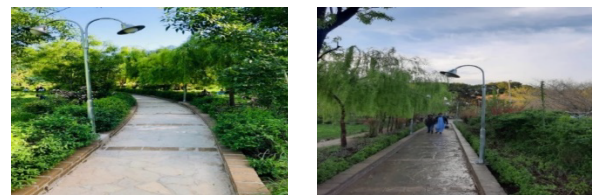


Figure 11. Lighting equipments



Figure 12. Toilet

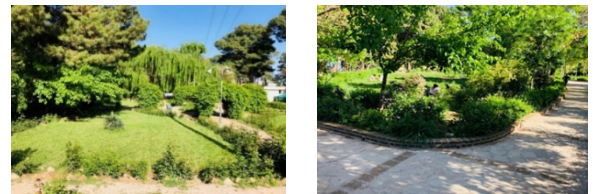


Figure 13. Views from park landscape

4.2 Results of the survey

Demographic characteristics of those who were included in the survey are provided in Table 3. 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 40; 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.

Table 3. Gender, age and residence period of the respondents

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	

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). 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. 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).

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 17). This result revealed the significance of ease in terms of distance and time when using parks.

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).

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).

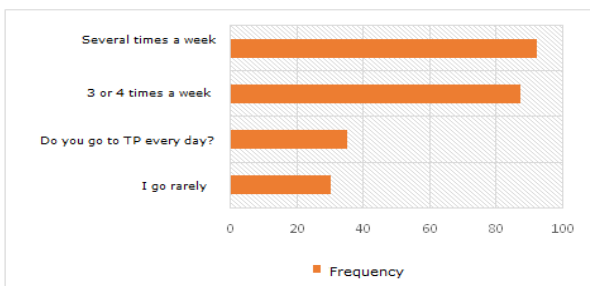


Figure 14. Frequency of Taraqi Park visits

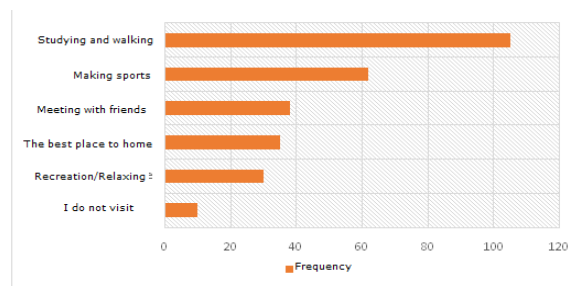


Figure 15. Main purpose of visiting the Taraqi Park

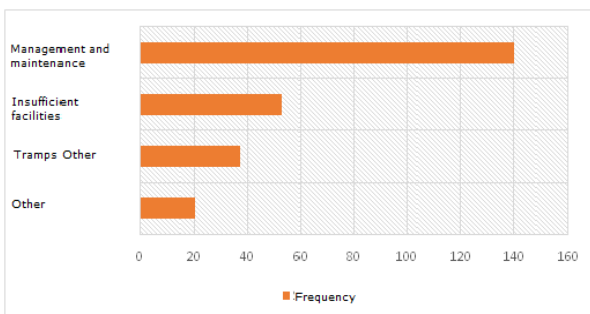


Figure 16. Problems in the Taraqi Park

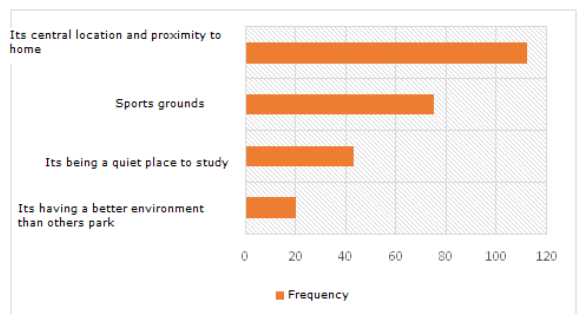


Figure 17. Reasons of using Taraqi Park frequently

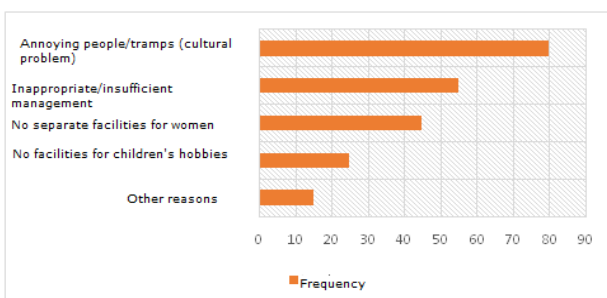


Figure 18. Disliked activities in the park

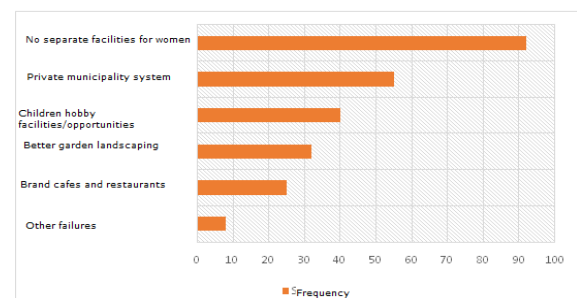


Figure 19. Activities and uses desired to be added to the park

The majority of the respondents (55%) considered the park inadequate in terms of cleanliness and toilets (Table 4). 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. 43 % of the participants stated that the park should be redesigned while 27.5% they mentioned that operation of the park should be transferred to the private sector (Table 5).

Table 4. Evaluation of the park

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

Table 5. Ways of improving the park

	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

5 Discussion

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^[20]. 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^[21].

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.

The park was designed first in 1965, after that the site

plan was modified two times. The site plan has not an excellent setting. Improper planting, roadways and walk ways design, lack of facilities are the problems that can be observed in each part of the park.

There is no sign of innovative designs in the park to be effective and attractive to the visitors. In general the park needs to be re designed, in order to have proper setting of the area, considering the innovation and sustainability.

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 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 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 6, 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.

Table 6. Results of field research

	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

6 Conclusion

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.

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