

Accessibility for Disabled People at Peshmerga Park, Erbil, Iraq

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Abstract- Just like most members of society, disabled people should be given the chance to satisfy their daily life requirements in public places. However, the existence of obstacles in places such as parks, leads to the abstinence of people with disabilities from having those privileges. Furthermore, in consideration of their feelings, this issue has stopped family members from also going to such places. This research aims to investigate to what extent the current situation at Peshmerga Park in Erbil city complies with disabled people's requirements. It also aims to highlight the local regulations that affect disabled people in Iraq. In order to achieve the aim of this research, a qualitative approach was chosen and the methods of data collection were observations and revision of relevant conventions and Acts. The study documented the current situation of Peshmerga Park and presented the main obstacles that disabled people face when visiting it. The findings have demonstrated that more than 39% of observed points fail to achieve implementing the demands of disabled people. The reason behind this lack of ability to provide in accordance with the needs of persons with disabilities is the shortcoming of compulsory application of the care of persons with disabilities regulations in Iraq. The regulation neither includes an explanation of the actual application nor is distributed to the relevant institutions. The significance of this study stems from the fact that it is the first attempt to assess the status of providing accessibility to Erbil parks for people with disabilities. The results of this study will help the planners, decision makers and officials that are responsible for parks to consider disabled people's requirement in future parks that will be erected and in next maintenance and reparation work at the parks. The appropriate design that provides the disabled people needs will also satisfy other groups' needs such as, the elderly, children, and those who have baby strollers. Finally, implementation of barrier-free design in all parks will help in creating sustainability in the local tourism sector.

Keywords- Disabled People, Parks, Accessibility, Erbil, Iraq

I- INTRODUCTION

Parks and green areas have an important role to human life because of their plentiful benefits, including aesthetic, cultural, health, entertainment and economic and that's the main objective of the establishment of parks [1]. Also, parks facilitate informal recreational activities, encourage social interaction, improve the overall quality of life, and create shared responsibility and sense of pride among their users

[2]. Just like any other human being, disabled people also deserve to live their life to the fullest and they have the right to be provided with all types of services to ease their accessibility and navigation around their surrounding environment [3]. However, disabled people face obstacles when visiting parks and other public places. Regarding this problem Seeland and Nicole stated that "Public green spaces are designed to offer green environments for recreation or as meeting places to all social categories of people. For a variety of reasons, users with handicaps or disabilities often receive limited benefits from these public places" [4]. The existence of obstacles in such places, has come in the way of disabled people's rights to these privileges. Furthermore, in consideration of their feelings, this issue has led to the abstinence for family members from going to such places. Disabled people didn't choose their disability, that's why it is the job of architects and planners to provide better places appropriate for their needs. The research studies the existing obstacles that face disabled people at Peshmerga Park and, highlights on the local regulations that affect disabled people in Iraq.

II- CONVENTIONS, AND ACTS THAT AFFECT IRAQIAN DISABLED PEOPLE

The convention on the rights of persons with disabilities was adopted on 13 December 2006, at the United Nations headquarters in New York and was opened for signature on 30 March 2007. It includes 50 Articles: the main articles that are relevant to this research are Articles 7 and 9. Article 7 concerns with children with disabilities and mentioned that "States Parties shall take all necessary measures to ensure the full enjoyment by children with disabilities of all human rights and fundamental freedoms on an equal basis with other children". Furthermore, Article 9 regarding Accessibility emphasizes on the ability of "persons with disabilities to live independently and participate fully in all aspects of life, States Parties shall take appropriate measures to ensure to persons with disabilities access, on an equal basis with others, to the physical environment, [...] and to other facilities and services open or provided to the public, both in urban and in rural areas. These measures, which shall include the identification and elimination of obstacles

and barriers to accessibility, shall apply to, inter alia: Buildings, roads, transportation, and other indoor and outdoor facilities” [5].

Iraq acceded to this Convention in March 2013, [6] and in the same year enacted the Care of Persons with Disabilities and Special Needs Act no 38 (2013) [7]. The Act contains eight chapters. Although this law does not include explanation for the real application, it can provide a base for preparing local standard, particularly, chapter 1, 2 and 3 of the Act. The first chapter includes definitions of; disability, person with disability, care, discrimination, and merge. Merge is defined as “Managing, programming, planning and policies that aim to achieve the full participation of people with disabilities in all areas of life within society without any form of discrimination”. The second chapter contains the goals and means that will help in preparing the requirements to merge people with disabilities. The third chapter demonstrates the representative members of ministries on the board of directors who proposes draft laws, regulations, and internal instructions as well as supervising and following up on securing the requirements of people with disabilities, in coordination with the relevant competent authorities.

III- PESHMERGA PARK AND ITS COMPONENT

Peshmerga Park is one of important parks in Erbil city (the capital of Kurdistan region) at the north of Iraq. The park is the most recent parks in Erbil city. It was established in 2016 and has an area of around 170 000 M2 [8]. Its location is on 100 meters road (8 km north of the city centre, on the latitude 36.2259 degrees north and longitude 44.0251 degrees east) (figure 1).

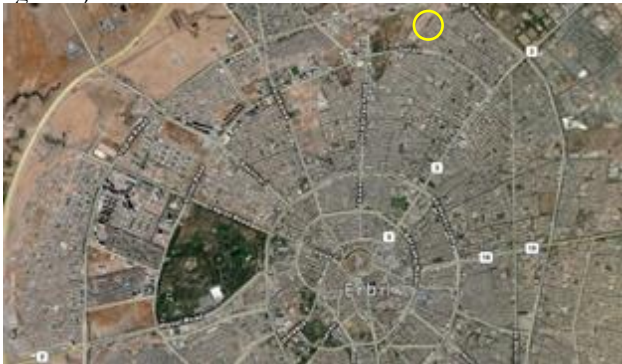


Fig. 1: The Location of Peshmerga Park in the City of Erbil [9].

Peshmerga Park is one of the most beautiful recreation grounds in the region. It consists of many components and includes various services and recreational facilities (Fig. 2).



Fig. 2: Peshmerga park's components [10]

The Peshmerga Park has been investigated as a case study of this research because it is designed and erected after the issuing of the Care of Persons with Disabilities Act no 38 in Iraq [7].

IV- METHODOLOGY

In order to achieve the aim of this research, a qualitative approach was chosen and the methods of data collection were observations and revision of relevant conventions and Acts. The Peshmerga Park was visited on many occasions between August and December 2021. Taking notes and photographs were helpful tools for collecting data, and a form was used for evaluation. The form includes 38 items covering all components of the park (table 1). The evaluation took in consideration the physical and vision disabilities. The scale of evaluation includes three levels: comply with disabled people requirements (C), partly comply (P) and non-comply (N). As mentioned in section II that the Care of Persons with Disabilities Act in Iraq does not include explanation for the real application. In other terms no local standards or codes of practice were issued regarding disabled people requirements. This led to the use of some international standards and codes as tools for evaluation. The main standards used for preparing the form of evaluation are ADA Standards for Accessible Design, of the USA (2010) [11], British Standard-BS 8300 (2018) titled “Design of an accessible and inclusive built environment”, Part 1: External environment [12] and Part 2: Buildings [13]; Guidance on the use of tactile paving surfaces, [14]; Time Saver Standard for landscape architecture [15], and Designing for Accessibility [16]. Furthermore, for some equipment of fitness and playground, in addition to furniture which do not have standards, the author used images of proper products which provide the service to disabled people as examples for evaluation figs. 9, 11 and,14. Finally, the findings were analysed qualitatively and quantitatively.

V- FINDINGS AND DISCUSSIONS

A. Car parking and Main gate

A place for pickup is available at the main gate of Peshmerga Park fig. 3A. There is also a car parking area near the main gate. However, although there are spaces near

the main gate which could be prepared according to standard for disabled's cars use with minimum width 3.6 m and no more than 50m from the main entrance [16], those areas were not specified for disabled people (figure 3B). Also, there is no sidewalk accessible from the carparking to the gate. Pedestrians and wheelchair users must cross the carparking area to reach the gate.



Fig. 3: Peshmerga Park A. the main gate B. the car parking

Furthermore, there are two gates, the northern one is the sub gate (not used currently) whereas the eastern one is the main gate of the park (figure 3A). There is a slight difference in the main gate area's height level. It was purposefully designed to be slightly ramped, making it easier for wheelchair users to move about. However, there is no curb ramp connecting the carparking area to the pavement in front of the main gate. This causes slight difficulties despite the short distance (figure 3B).

B. Pathways

At most the Peshmerga park's pedestrians can move from level to level smoothly by sloped pathways (figure 4A) instead of using stairs. The gradient of the pathway is less than 1:12, this complies with standards that mentioned that Ramp runs shall have a running (continued) slope not steeper than 1:12 [11 and 12] and is very helpful for wheelchair users. Furthermore, the required dimensions for paths are available in the park. The width of all the paths exceeds 1.8m that is enough for two wheelchairs or two people side by side. The paving option that is used for paving the paths is interlocked pattern cement block (figure 4A). It has an elegant appearance, non-slip surface when wet or dry, has a non-glare material and provides a safe and comfortable use for people using walking aids and wheelchairs. However, although there are user-friendly pathways, the used wood plastic flooring at some places has caused discontinuity of the path surface due to loss of some parts (figure 4B). Furthermore, there is no tactile paving that guides blind people. This contradicts the UK Guidance on the Use of Tactile Paving Surfaces [14].



Fig. 4: Pathways' Pavement at Peshmerga Park A. cement block B. wood plastic flooring

C. Ramps

The Park land is mostly flat, but a level difference is unavoidable. Stairs were not used for accessing different levels. The level of the sport facilities area is around 1 m lower than the rest of the park. Pedestrians can access by a sloped pathway (figure 5A) whereas using Wood plastic interlocking flooring tiles (un-durable material) at water channels has caused the discontinuity of some ramp surfaces (figure 5B).



Fig. 5: Ramps at Peshmerga Park A. sloped pathway B. discontinuity of a ramp surface

D. Main Yard

The main yard is the first space that faces the visitors as they enter the park (figure 6A). It is flat and has a circular shape. The floor of the plaza is flat, and the paving material is non-slippery, providing smooth accessibility for handicapped individuals. However, some hazards can be expected because of the use of wood plastic flooring at some places (some parts were lost) (figure 6B).



Fig. 6: at Peshmerga Park A. Main piazza B. Parts of paving were lost

E. WC Facilities

There are male, female, and disabled people WC facilities at Peshmerga Park in many places. Unfortunately, they can't be easily used by disabled people. Although a ramp is available and the width of WC's door is enough for wheelchair accessing (80 cm), the area of WCs is small for a wheelchair user, particularly the door that opens to the inside. Furthermore, it does not include Grab bars that help a handicapped person to use the WC without assistance. This contradicts British Standard regarding accessible toilet [13]. Moreover, the signage is small and does not clearly define the WC fig. 7.



Fig. 7. WCs facility at Peshmerga Park

F. Playground

There is installation of two Playgrounds at Peshmerga Park, but they cannot be used by disabled children fig. 8. They include standard games that are not proper for them.



Fig. 8. Standard children playground at Peshmerga Park

Regarding this issue, Pouya et al stated that “The play equipment and facilities in parks or playgrounds are often designed for normal children and no deserved attention is paid to the needs and conditions of disabled children which makes it hard for them use and play with” [17]. Also, the Canadian Public Health Association stated that ‘Design elements that may lead to positive outcomes for typically developing children may not be suitable for children with disabilities or may negatively influence their play experiences’ [18]. Just like any other kid, disabled kids also have the right to enjoy their time at the park and live their childhood. According to that, some countries have accredited playground equipment that can be used by both disabled and abled children fig. 9. This can greatly contribute to creating a social environment for disabled children to interact and share joy in playing with their abled peers. This will also encourage parents to visit parks and share their disabled children’s enjoyment.



Fig. 9: Special games that can be used by disabled kids A. [19] B. [20]

G. Sport and Fitness Facilities

Sport and Fitness facilities are available at Peshmerga Park fig. 10. Wheelchair users can enjoy of the sport facilities even if some requirements are not available, for instance, the Basketball hoops should be lowered to 2.10 m from the standard 3.00 m height [15]. But fitness facilities are not proper for disabled people. They were designed for abled people. However, some fitness equipment can be used by wheelchair users fig. 11 can be provided at this park. Furthermore, for spectator stands, space for wheelchair users should be located near entrance ramps to minimize maneuvering through crowds [15]. However, accessibility for disabled people to spectator stands is not available at peshmerga park.



Fig. 10: Sport and Fitness Facilities at Peshmerga Park



Fig. 11. Fitness equipment for disabled people in parks [21]

H. Masjid

There is a Masjid at Peshmerga Park. It can be accessed and used easily by disabled people (figure 12). There is a ramp which leads to the level of a double leaf door. Also, there is an external ablution space that can be used too.



Fig. 12. Peshmerga Park's Mosque

I. Setting areas & type of seats

There are many places in the park including seating areas fig. 13 in which wheelchair users can put their seat beside them but there are no tables available for handicapped people's use. A space should be provided for wheelchair users and special furniture should be designed for disabled individuals to feel more comfortable and less neglected fig. 14.



Fig. 13. Peshmerga Park A. Standard bench B. Sitting area



Fig. 14. Standard Wheelchair access picnic table [22]

J. Open Theatre

There is an open theatre fig. 15 at the park, its level is lower than other spaces at the park. Accessing to this level is through the inclined pathways. However, accessibility to seats of the theatre is not available for disabled people, they can only stay at the ground of the theatre.



Fig. 15. Open Theatre at Peshmerga Park

k. Results of Observations

The research investigated the extent of availability of disabled people requirements at Peshmerga Park and concluded in an evaluation form table I. The findings of research demonstrated that some requirements of disabled people were provided to some extent. Statistically, among 38 observations, 39.47% (15/38) contradict to disabled people requirements, whereas 34.21% (13/38) comply with their needs, and 26.31% (10/38) partly comply. The reason behind the rate of contradiction to the requirements of disabled people is lack of compulsory regulations. The Act on the care of persons with disabilities and special needs in Iraq [7] neither developed to include more explanation that serve disabled people requirements in buildings and open spaces nor disseminated to responsible authorities of architectural planning and others that responsible for providing permissions of such projects. The United Nations assistance mission for Iraq (UNAMI) on its report on the rights of persons with disabilities in Iraq recommended that

Practical interventions are needed to eliminate the physical, psychological and attitudinal obstacles that create the disability in the first place. These interventions need to be designed with the active participation of the disabled persons themselves, whose potential remains so far untapped, keeping in mind the universal design with a view to ensuring systematic accessibility [23].

Furthermore, guidelines, codes of practices and measures on how to deal with disabled people in such sites have not yet been established by parks management organizations. Regarding this point, Imrie and Kumar stated that “disabled people’s needs are poorly articulated and/or represented in the design and development of the built environment while the regulatory controls which oversee disabled people’s access are weak” [24].

TABLE 1. RESULTS OF OBSERVATIONS (C=COMPLY WITH DISABLED PEOPLE’S REQUIREMENTS, P= PARTLY COMPLY, AND N= NOT COMPLY)

The observed points		Assessing		
Car parking	A place for drop-off and pickup at the entrance area	C	P	N
	Car parking at the park close as possible to the gate	C	P	N
	Specific places for disabled’s cars at the parking	C	P	N
	Signposts that help to find disabled car parking	C	P	N
	A sidewalk, accessible from car parking to the gate	C	P	N
Main Gate	A ramp or inclined path integrated at the main gate	C	P	N
	A curb ramp between car-parking level and pavement in front of the gate	C	P	N
	Accessible signage at the main entrance area	C	P	N
Pathways	The paths’ width is 1.8m or more	C	P	N
	The paths having a non-slippery surface	C	P	N
	The paths having a non-glare surface	C	P	N
	Tactile paving for blind people was used	C	P	N
	The paths having a surface continuity	C	P	N
Ramps	The minimal gradient of the ramp is 1:12 or less	C	P	N
	The ramps’ width is 120cm or more	C	P	N
	The ramps having a non-slippery surface	C	P	N
	The ramps having handrails on both sides	C	P	N
	The ramps having a raised kerb at least 0.1m high	C	P	N
WCs	Signage for WC is clearly defined	C	P	N
	Specific WCs for disabled people in the park	C	P	N
	A ramp was used to access the WC’s floor level	C	P	N
	The WCs include Grab bars	C	P	N
	WC’s door is sliding, folder or leaf open to outside	C	P	N
Play-ground	WC’s door clear width is 80 cm or more	C	P	N
	The playground accessed easily by disabled children	C	P	N
	The playground is usable by disabled children	C	P	N
Sport & Fitness	Disabled people access easily to sport and fitness facilities	C	P	N
	Disabled people use the sport facilities easily	C	P	N
	Disabled people use the fitness facilities easily	C	P	N
	Disabled people access easily to spectator stands	C	P	N
Masjed	Disabled people access to the mosque easily	C	P	N
	Ablution space near the Masjed can be used by disabled people	C	P	N
Sitting	Sitting areas/furniture designed specifically for disabled people use	C	P	N
	The furniture at restaurant can be used easily by disabled people	C	P	N
Open Theatre	Accessibility to the open theatre’s floor level is available for disabled people	C	P	N
	Accessibility to the seats of the open theatre is available for disabled people	C	P	N
Plaza	The floor of plaza can be accessible smoothly by disabled people	C	P	N
	The floor of plaza having a non-slippery surface	C	P	N

VI.CONCLUSIONS

The study documented the current situation of Peshmerga Park and presented the main obstacles that disabled people have been facing when visiting this park. The findings of the research have demonstrated that although the park was designed and erected after issuing the regulation on the care of persons with disabilities in Iraq, many requirements of disabled people were not provided. Statistically, more than 39% of observed items at peshmerga park contradict disabled people requirements. The reason behind the contradiction is the local law’s having neither developed to

include more explanations that serve disabled people's requirements in buildings and open spaces nor disseminated to responsible authorities of architectural planning and others that are responsible for such projects. The results of study will help the officials that are responsible for parks to consider disabled people requirements either in next maintenance and reparation work at the park or in future parks that will be designed and erected. The appropriate design that provides the disabled people needs will also satisfy other groups' needs such as, the elderly, children, and those who have baby stroller. Moreover, implementation of barrier-free design in all parks will help in creating sustainability in the local tourism sector. Finally, the research recommends some points that will contribute to providing the needs of people with disabilities in parks.

- Local standard specifications that serve disabled people's requirements in buildings and open spaces should be prepared based on the local Acts with the participation of the experts in the field and the disabled people themselves.
- The regulations and standards should be disseminated, and compulsory applied by responsible authorities of architectural planning and others that are responsible for designing and implementing parks.

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