



CHALLENGES OF ACCESSIBILITY FOR MARGINAL PEOPLE IN PRIVATELY OPERATED PUBLIC SPACE: LINEAR PARK, KHULNA AS A CASE

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Abstract

Apart from economic and environmental significance, public spaces have been argued to be one of the most important integrants of urban life for their social role. Nonetheless, a large number of public spaces in different contexts do not promote heterogeneity and lack in publicness. The exclusion of the marginal people from using public space has become a rising issue. However, built environmental design and management play significant roles in contributing to this exclusionary nature in state-owned but privately operated public spaces. To assess the extent and depth of exclusion, this study initially investigates the user condition of the park, who comes to the park, the number of visitors, and above all, the presence of marginal people. Later, with the indicators of accessibility, the study explores the shortcomings of design and management aspects, which are responsible for exclusion. This qualitative research employs a case study approach and uses observation and interview methods in the urban context of Bangladesh. Empirical data is collected from Linear Park in Khulna, a recently developed riverfront park by Khulna City Corporation (KCC) which is leased to a private organization. Findings from this study reveal that different roles of both public and private bodies are responsible for diminishing publicness in both development and use phases. Accordingly, design and management considerations for such urban parks need to be revised to ensure the public space is more comprehensive and inclusive to serve the diverse groups of people.

Keywords: Exclusion, accessibility, publicly owned privately operated park, publicness

Introduction

Public spaces are those that are open to the public and equally accessible to all (Newman, 1973; Carr et al., 1992; Kohn, 2004; Németh & Schmidt, 2007; Maciejko & Czajka, 2019; Micha, 2021). Public spaces enhance social equity through creating and maintaining environments for social interaction (Niemelä, 2014; Wolch et al., 2014). Madanipour (2010) argues that these places are seen as nodes for social cohesion, bringing different people together in public places. Besides, one of the most important characteristics of public places is democracy, which provides participatory, conciliatory, and transparent public spheres (Madanipour, 1996; Yilmaz, 2018). The eleventh goal of the Sustainable Development Goals (SDGs) also sets out to provide universal access to safe, inclusive, accessible, green public spaces, particularly for women and children, older people, and people with physical challenges. Furthermore, a key to achieving the New Urban Agenda is promoting public spaces that are socially inclusive, connected, accessible, and gender-responsive (Andersson, 2021).

But in urban spaces, marginal people have become the forgotten elements (Yatmo, 2008). The public spaces of the contemporary world are being questioned by the equity issue (Lynch, 1972; Carr et al., 1992; Badshah, 1996; Madanipour, 1996; Marcus & Francis, 1997). The presence of constraints and restrictions on access to public space is a common aspect of exclusion, identified in various studies (Madanipour, 1996; Loukaitou-Sideris & Banerjee, 1998; Oc & Tiesdell, 1998; Madanipour, 1999; Carmona et al., 2003). Due to limited access to public space, many marginal groups have been deprived of public spaces to congregate for social interaction (Doherty et al., 2008). With the state's limited fiscal capacity in the provision and management of public space, the number of public spaces managed by private interests are increasing (De Magalhaes & Trigo, 2017; Rahman & Zhang, 2018). "Privatization" in its different forms transforms public spaces, increasing inequalities and limiting access (Miao, 2011; Micha, 2021).

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Furthermore, the limitation of democratic decision-making is that the participation of all voices is merely counted. This fact contributes to shaping public policy, the policy that controls all types of development (Madanipour, 2003).

In our context, marginal people are asserted as a deprived population and providing public space access to them is determined as a future challenge in the Urban Development Directorate (UDD) country paper of Bangladesh. Different accessibility analyses of public space in Dhaka city illustrate that many of these places are losing their inclusive character (Tabassum & Sharmin, 2013; Rahman & Zhang, 2018). Most of the parks cannot accommodate children, the elderly, and the physically challenged as they are not convivial to access and use (Mishu et al., 2014). Realizing the importance of parks for social development, public authorities like Khulna City Corporation (KCC) and Khulna Development Authority (KDA) are establishing new parks and maintaining existing ones (Khaza et al., 2020). Due to low financial capacity and manpower scarcity, KCC is currently contracting out the management rights of a few parks through leasing to private authority. These privately managed parks are seriously prone to marginalized people's exclusion and degrade the character of accessibility. Moreover, assessment of public space accessibility is an important task that is currently inadequately performed in Khulna city (Rahman & Zhang, 2018).

This research is going to search for answers to how exclusionary design and management practices are responsible for diminishing the public character of a publicly owned but privately operated park. With the core vision of exploring the nature, degree, and form of exclusions and limitations of access, this study primarily investigates the user status of a privately leased park. Later, the park is assessed by the indicators of accessibility to understand the influencing factors behind its exclusion. Finally, challenges of accessibility are identified by focusing on the role of public-private partnerships in both the development and use phase.

Literature Review

Those communities who are not accommodated, become marginalized in public space. The term "marginalization," when used broadly, refers to a dynamic between two social analytic categories: the "center" and the "margins." Ordinarily, supremacy, power, and privilege are linked with the center, and apparent powerlessness is associated with the margin. Marginalization is often determined by factors such as gender identity, culture, language proficiency, ethnicity, sexual orientation, religion, political affiliation, financial status, and geographical location (Kurniawati, 2012). In various studies conducted in the European context, the poor, the elderly, children, women, and ethnic minorities have all been identified as marginal communities at risk of social exclusion (Atkinson, 2000; Andersen & Van Kempen, 2003; Kohli & Woodward, 2004).

There are a variety of ways to define marginalization depending on the context and degree of investigation. Badshah (1996) identified marginalized populations very precisely based on their use and accessibility of public space. According to the investigation, women, children, the elderly, physically challenged, street people, and vendors are prone to exclusion in public spaces. This exclusion is determined by their gender, age, economic capacity, and physical ability (Table 1). However, it is also observed that these exclusionary trends are apparent in outdoor public spaces such as squares, streets, and parks. Researchers argue that the tendency has been more prominent in the twenty-first century (Borsdorf & Hidalgo, 2009).

Table 1. Marginal people specification based on public space use

Determinant	Classification
Gender & age	Women, children, elderly
Economic capacity	Vendors and street people
Physical ability	Physically challenged

Privatization occurred with the rise of industrial urbanism when land was co-opted for industrial production and exclusive residential usage. In neoliberal economic restructuring, private sectors have increased in serving urban space, and different modes of public-private partnership initiatives are encouraged by public authorities (Sorkin, 1992). In most developing countries, the government's traditional role and fiscal capacity have diminished, increasingly facilitating "commoditizing" public and urban spaces (Banerjee, 2001; Németh & Schmidt, 2011). Moreover, in need of safety and in search of a better community, restricted spaces are also becoming an inevitable choice for urban decision makers (Doherty et al., 2008).

Because of the global privatization movement, the concept of public-private partnership has been diverse in different contexts. Based on ownership and operation criteria, urban space can be classified into four categories (Zhang, 2017). Typically, ownership is connected to operation, public places are typically operated by the government, whereas private areas are typically managed privately. We can put these two typical spaces at either end of the axis, and spaces with a mix of ownership and operation can be placed somewhere in between (Németh & Schmidt, 2011). Figure 1 represents the four possible ownership and operation combinations. Mixed ownership spaces have become increasingly popular in recent years (Katz, 2006). A large number of public spaces in modern cities are publicly owned but leased to private investors. This ‘contracting out of management’ is something different from so called ‘privatization’. But contracting out the management of public spaces affects accessibility in different ways, depending on what kind of management responsibilities are transferred. The rules for behavior, rights to access and use, opening schedules, etc., are set by the terms and conditions of the lease (De Magalhaes & Trigo, 2017).

		Ownership	
		Public	Private
Operation	Public	Publicly owned and operated	Privately owned and publicly operated
	Private	Publicly owned and privately operated	Privately owned and operated

Figure 1. Ownership and operation combinations of public space. Source: (Németh & Schmidt, 2011)

Due to the variety of public–private partnership forms, not all private owners have complete disposal rights, especially with regard to urban public places. If a space is publicly owned, protecting the public interest is the formal requirement for the regulation. Although the management of such spaces might be contracted out, the private management legally should still be accountable to the government and people. Moreover, if the primary purpose of a facility is to serve the general people, the private ownership could not excuse an unjustified refusal of access (Zhang, 2017).

Access is a useful indicator applied in different context for defining and assessing the segregation trend of public space (Schmidt & Németh, 2010; Németh, 2012; La Rosa, 2014; Reyes et al., 2014; Ekdi & Çıracı, 2015). Openness of public space should include physical as well as social accessibility: access to the place and to the activities within it (Madanipour, 2010). Synonymously, physical and social accessibility are the attributes used to measure the accessibility of a space widely used in different studies (Carr et al., 1992; Pasaogullari & Doratli, 2004; Ercan, 2010). Benn and Gaus (1983) divided 'attributes of access' into access to spaces, activities, information, and resources. According to his study, besides physical and social accessibility, a public place should provide activities, resources, information, and discussion to anybody who wants it. Therefore, the exclusion trend of this study is assessed by these four mutually supportive qualities of accessibility. They are physical access, social access, access to activities and access to information. As a functional dimension, the first quality relates to access to the physical environment, as public space is a place where everyone has the right to be physically present (Benn & Gaus, 1983). The second attribute is social access, which indicates who is and is not welcome in the place (Carr et al., 1992). The third and fourth qualities both relate to 'public space' as a place where all are welcome to participate in activities and design discussions about its development and use processes. This research is conceptualized in such a way that the exclusion of marginal people in privately operated parks is directly linked with these four attributes of accessibility.

Materials and Methods

Khulna city covers an area of 45.65 km² and has a population of about 663,342 (BBS, 2011; KCC, 2021, October 12). As it was stated earlier, this study is going to assess the accessibility of a publicly owned but privately operated park. There are 3 parks in Khulna city built under KCC supervision but contracted out on a lease basis. These are Khalishpur Wonderland Park, Muzgunni Children's Park, and Linear Park. Khalishpur Wonderland Park started in 1997, Muzgunni Children's Park in 2006, and Linear Park in 2016. Linear Park is new compared to the other parks, and the other two parks are temporarily shut down.

Based on two different continuums of ownership and operation responsible for corresponding development and use phases, Linear Park positions itself as a publicly owned but privately operated entity. As an initiative of KCC, the design and construction of the park started in the year 2009 to increase the city's beautification and to protect the Moyur River from pollution and encroachment. The KCC spent around 24 crore takas to develop the park with the financial help of the Asian Development Bank (ADB) under the City Regional Development Project (CRDP). After completing the construction of the first phase, the park is leased to a private authority named Messrs. Faruq Enterprise in 2015 for 25 years. This study focuses on the existing built area of the park, as highlighted in the Figure 2.

Part of the data that was collected for this research came from documents and archival records, which can be considered secondary data. On the other hand, primary data was collected through face-to-face interviews with a semi-structured questionnaire, direct observation, and key informant interviews.

The population size would be infinite as anybody can visit the park. But since tickets are required to enter the park, only those who entered the park have been interviewed. Data from the park's entry record for the month of September 2021 shows that an average of 113 people came into the park every day. By considering 113 people as a finite population, 88 respondents were interviewed (where the confidence level was 95% and a 5% margin of error was considered) through stratified random sampling. Firstly, the sample population is divided into two broad categories, named marginalized and non-marginalized. Here, all males with an age range between children and elderly are considered non-marginalized respondents. People between the ages of 0 and 12 are regarded as children, 13-18 are adolescents, 19-30 are young adults, 31-55 are adults, and people beyond 55 are considered elderly. Meanwhile, marginal people's categories (women, elderly, children, physically challenged, vendors, and street people) are justified in the literature review section based on determinants such as age, gender, economic capacity, and physical ability. As children and the elderly are treated as separate marginalized groups, women of all ages, other than children and the elderly, are considered marginalized. Other marginal respondents, like vendors, street people, and people with physical disabilities, are chosen based on their economic capacity and physical abilities.

When investigating about physical access, they were asked about their travel distance, mode of transportation, walkability, universal accessibility, and approachability of different park features. During social access, they were asked about the park's attractiveness, safety and security, unpleasant experiences, image and ambience. When collecting data about the third parameter, access to activities, they were asked about why they came to the park, what they liked to do there, and what they really wanted to do more of in the future. In the case of the last parameter, they were asked whether they were aware of the design activities and, if they were involved in the design activities, if they were aware of the various programs or activities that took place at different times after the park was created. Through direct observation, various types of spatial mapping have been made by collecting information about who is coming here on weekdays and weekends, the activities that are taking place both outside and inside the park at any time of the day.

From a holistic point of view, it would not be wise to only listen to the people inside the park but also talk to the people outside. Since this is basically a research of qualitative genre, even though the population size is infinite, 30 people are considered as sample respondents according to the sample size guideline of qualitative research (Creswell, 1998) when conducting unstructured interviews of people outside the park. The only purpose of this unstructured interview was to find out the answer to the question, "Why don't they visit the park?" These 30 respondents are divided equally according to the category of marginalized group.



Figure 2. Understanding the study area

In the case of key informant interviews, semi structured interviews were conducted with the people involved in project design and implementation of the public body KCC and with the person in charge of park management of the Messrs. Faruq Enterprise. Finally, through data triangulation, suitable data was accumulated for this research. A descriptive statistical analysis was done using Microsoft Excel to get a clear picture of the park's user status. Besides, by using the criteria of accessible places and inclusive processes, we analyzed the existing design and managerial practices of the park. The latter part of this research brings together the results of these investigations and presents the challenging scenarios for accessibility.

Results and Discussion

As this research is trying to find different influencing factors that are responsible for marginal people's exclusion in a state-owned but privately operated public space, so the first aspect to look at is the presence ratio of marginal and non-marginal people (Figure 3). Among the total recorded respondents who came to the park, 57% ($n = 50$) were from the non-marginalized category and 43% ($n = 38$) were from the marginalized group. Besides, among the non-marginalized group, 32% were adolescents, 50% were young adults, and 18% were adults (fig. 3). Within the marginalized group, 9% were children, 20% were women, 12% were elderly, and 2% were physically challenged. Among 20% of women, 29% of respondents were adolescents, 55% were young adults, and 16% were adults. No street people or street vendors were found inside the park. All these percentage indicates that marginal people have limited access inside the park. However, only 19% of the respondents who came to this park live within 10 minutes' walking distance, but still not all of them came to the park on foot. On the other hand, from the unstructured interview performed with the marginal group outside the park, the reasons for not visiting this park are as follows: (1) Payment to enter the park, (2) Proximity to the entrance, (3) Unsocial activity inside the park, and, (4) Restrictions of street people and street vendors to enter. Further findings are briefly stated below in four key indicators of accessibility, following the methods explained in the previous section.

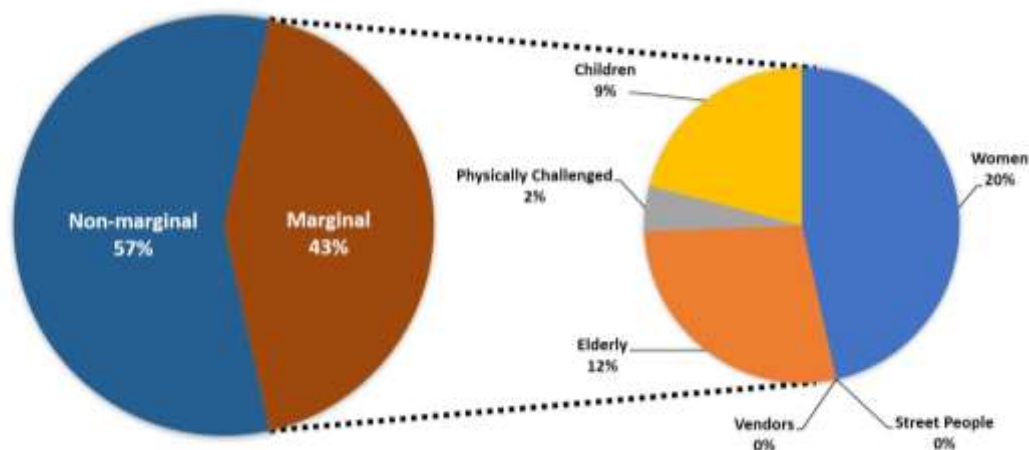


Figure 3. Status of users at Linear Park

Physical Accessibility

A public space is a place that is physically reachable and open to the public (Benn & Gaus, 1983). Under the physical accessibility parameter, vehicular and pedestrian connectivity with the city and surroundings are considered as primary aspects to explore. Though Khulna Linear Park is situated on the outer periphery of the city, it is accessible by different types of vehicular means. It is identified that most people come to visit the park by auto-rickshaw (52%). Other users rely on rickshaws (28%), public transport (6%), personal vehicles (3%) and on foot (11%). In terms of road connectivity, the entrance of the park is connected to the Khulna-Satkhira highway by a secondary road and is situated right next to the park (Figure 4). There is an absence of pedestrian facilities (Figure 5a) on the surrounding roads, including the highway. A park or a public open space is also an important resource for the surrounding community. Therefore, easy and safe access from the surrounding neighborhood ensures spontaneous use of a park (Moran et al., 2020). Moreover, building a safe approach to a park requires separating pedestrian routes from roads so that pedestrians do not compete with automobiles (National Recreation and Park Association, 2015). Despite having a residential neighborhood within a 400-meter radius or 5-minute walking distance of this park, the physically challenged, elderly people, and children are afraid to come to the park on foot due to a lack of pedestrian facilities in the adjoining roads.

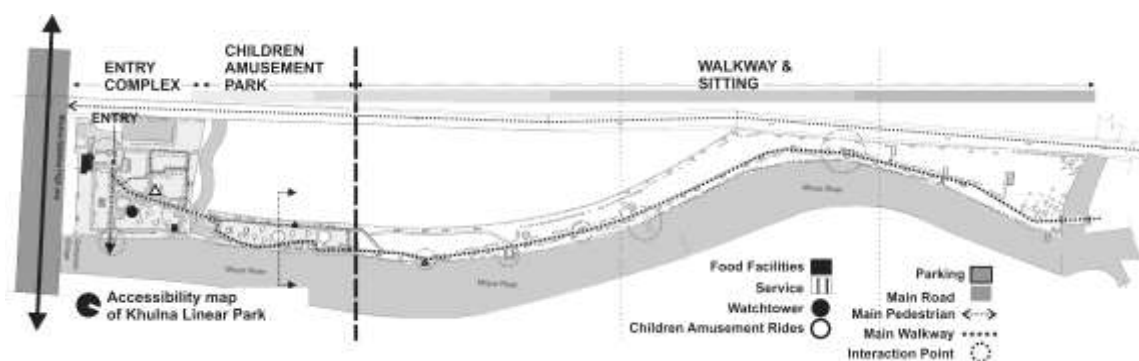


Figure 4. Vehicular and pedestrian access

The entrance to the park is located at the starting corner, and no other gateways are available for the visitor to enter this linear elongated development. Without multiple entrance or exit points, fences and other barriers limit

pedestrian access, resulting in longer walking distances (NRPA, 2015). From activity analysis, it is observed that very few people get access and perform activities in the last portion of the park. According to users, since there is no option to exit or enter from any other point of such a long linear pathway, children, women, the elderly, and physically challenged people have little interest in going inwards as they become tired of walking such a distance. So, it's a clear indication that, the single gateway of the linear park itself is a barrier to access.



Figure 5. (a) Absence of pedestrian facility (b) Less accessible heightened gateway

From the key informant interview with the public body, it is clear that the entrance gate was created with traffic calming and exclusivity in mind. Public authority proposed the elevated gateway (Figure 5b) to welcome the affluent user. Moreover, the entry level is raised so high that children, the elderly, and physically challenged people cannot enter smoothly. Although there is a ramp for physically challenged people, the safe range of slope ratio between 5% -12% (Yılmaz, 2018) is not maintained. As a result, wheelchair users are unable to access the entry on their own. However, if the width of the stair exceeds 6 feet, a handrail should be installed in between for smooth movement of the elderly and children (Yılmaz, 2018), which was not addressed when designing the stair of the entrance gate. Moreover, the elevated gateway symbolically and physically expresses the undesirable people, like street people and vendors, excluded from the environment.

Furthermore, universal accessibility is not properly addressed in different features inside the park. Features like toilets, amusement rides, a watch tower, and the boundary side benches are inaccessible for the elderly and physically challenged people. In addition to this, although the pedestrian walkway within the park is well-designed, there are a number of locations and elements (particularly seating, sculpture, and children's play equipment) where no walkway has been built. Due to the lack of a path, it is impossible to reach there even after establishing all of those features.

The key informant interview with private management revealed that the problems faced by the users related to universal accessibility, walkways, and multiple access points were visible to the private management, but they did not make any modifications or take any initiative to inform the public body about mitigating these issues.

Social Accessibility

A space can be described as socially accessible only if it is accessible to all members of society from all socioeconomic strata (Madanipour, 2013). One of the goals of the Linear Park was to attract visitors from all across the city. However, observation demonstrates that there is a degree of homogeneity (Figure 6a) that prevails rather than variety. The presence of people of varying social classes and orders is rare here. Although, the place has enough area capacity to bind people from different social classes, people of a certain age group, particularly the young, around 40% of the total population, outnumber those of other age groups. Thus, homogeneity creates an unsocial environment which discourages visitors, especially the elderly, women, and children Figure. 6b). Moreover, the absence of heterogeneous users and activity degrades the social image and ambience, making it difficult to welcome the wider social groups of society.



Figure 6. (a) Lack of heterogeneity (b) Activity of homogenous users

When designing the park, a boundary wall was included to ensure the users' safety. In Khulna Linear Park, the boundary wall is perforated adjacent to the parking spot at the park's entry, but it is constructed as a solid wall in other locations. This solid surface (Figure 7a) separates the neighboring community from the park, preventing people from the surrounding neighborhood from seeing inside the park, resulting in a lack of social surveillance. A boundary wall designed with visual transparency ensures natural surveillance as well as safety and security (Saxena & Kamal, 2018). Here, the lack of visual permeability contributes to the creation of unsocial spaces, particularly near the impermeable boundary benches. From the key informant interview, KCC mentioned that though they had planned to build a perforated boundary wall like parking space, due to the limitation of construction budget, they had to build a temporary boundary wall with cheap and unperforated material. Another issue with visual permeability is that the park's front part cannot be seen from the major road. From the street, it is difficult to get a clear view of the area due to some temporary structures of street market. Although both private and state entities attempted to remove them, their efforts were unsuccessful.



Figure 7. (a) Lack of social surveillance due to solid boundary wall (b) Lack of lighting fixtures

Moreover, as a social space, this park should be convivial to use for a longer duration of time, covering both day and night. However, shortage of lighting features in the park discourages people's access at night. Along with a lack of lighting (Figure 7b), the park's limited access and neighborhood exclusion can be attributed to deteriorating the 'safety' image of this place. Illumination, mechanized surveillance (CCTV), and regulated patrolling are some measures for enhancing surveillance of public realms (Banerji & Ekka, 2016). Besides natural surveillance, mechanical surveillance measures and infrastructures are not sufficient compared to the large area that falls under the managerial rights of the private authority. Children, along with women and elderly people, prefer to leave the premise immediately after the sunset.

The authority declares that the insufficient economic benefits push them to a lower maintenance scenario. According to community people who entered the park, they envisioned the park as a location to spend leisure time

after work with their families. They also expected their children would get to play within the park premise during the daytime. This is how they utilized the riverside before the development. However, once the park developed and started to be privately operated, they became the outsiders as users. Thus, the entity has lost its social value.

Access to Activity

It is generally true that people and human activities attract other people (Gehl, 1987; Gehl & Gemzøe, 2001). In a public space, people should have the right to do whatever they want to, except be involved in unsocial and harmful activities. As a privately managed public park, to enter Khulna Linear Park, everyone has to pay an entry fee. After paying entrance through the gate complex, there are rides available for children, a watchtower, a voluntary animal exhibition, a restaurant, and a food stall for all (Figure. 8a).

Among these features, the watchtower is temporarily restricted to entry for safety reasons (Figure 9a). Even though these functions and services are present, they are not uniformly distributed with its long linear development, which is responsible for generating inactive areas on the rear side. The number of inactive areas is around 72% of the total area rendered that contains only walkway and sitting facilities (Figure 8b); whereas, no surveillance measures (natural or mechanical) or even toilets are found nearby in the last portion of the park.

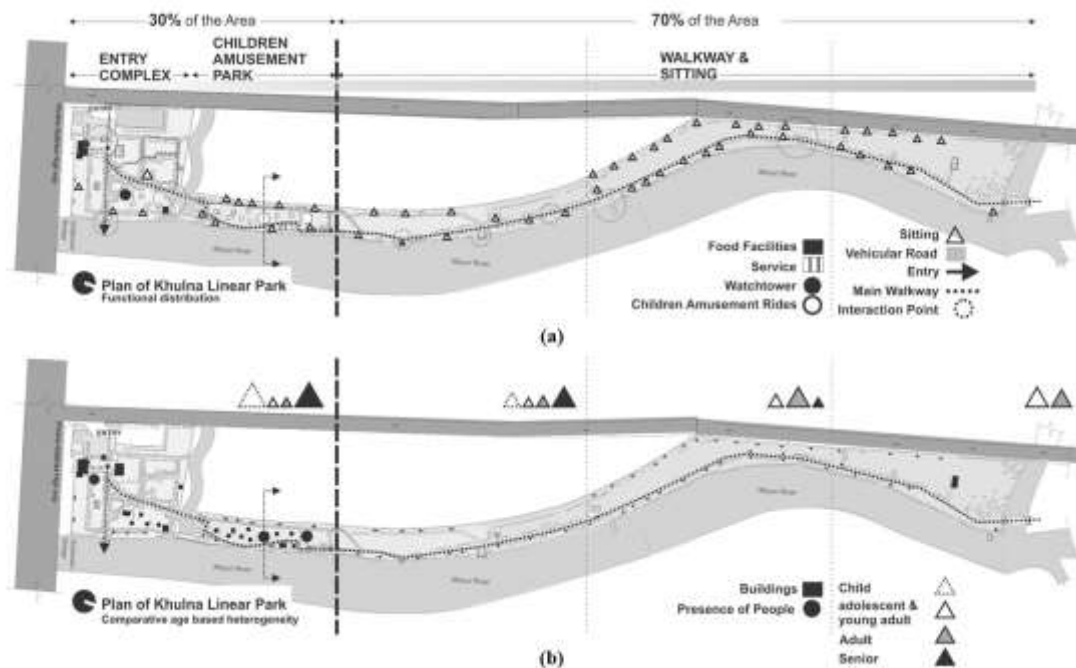


Figure 8. (a) Distribution of features (b) Distribution of user

Besides that, the whole park is accessible by a network of walkways where, after a regular interval, benches are available to sit on. However, these benches were specially designed with a partition rail in the middle to prevent anyone from laying down (Figure 9b). These benches did not meet any special requirements to support elderly people, women, and children sitting there properly. Whereas, seating in public spaces should be age friendly and should avoid the 'one size fits all' model (Barron, 2015).



Figure 9. (a) Inaccessible Park facilities (b) Non-Flexible Park facilities

Although extra fees are required to use children's amusement rides, children are eagerly expecting to try these rides. The mechanical ride, 'Marry-go-round', operated only at the weekend. Besides, other rides remain untouched and vacant on a regular working day, while the number of child visitors appears low. Moreover, there is literally no scope left for street children to enter freely and enjoy these rides. There is also no equipment found for physical exercise, especially for elderly people. For women, those who want to visit the park with their infants have no provision for privacy for breastfeeding and diaper-changing facilities.

There are ample street hawkers and vendors found outside the park gate. These are mostly street foods that remain occupied and crowded with people. But, inside the park, vendors' access is strictly prohibited. Here, as a private entity to enhance their economic benefit, authority is strict to discourage income-generating opportunities for others. However, during the survey, there were very few people found in the restaurant and food stall located inside, whereas this part should be occupied by a good number of visitors.

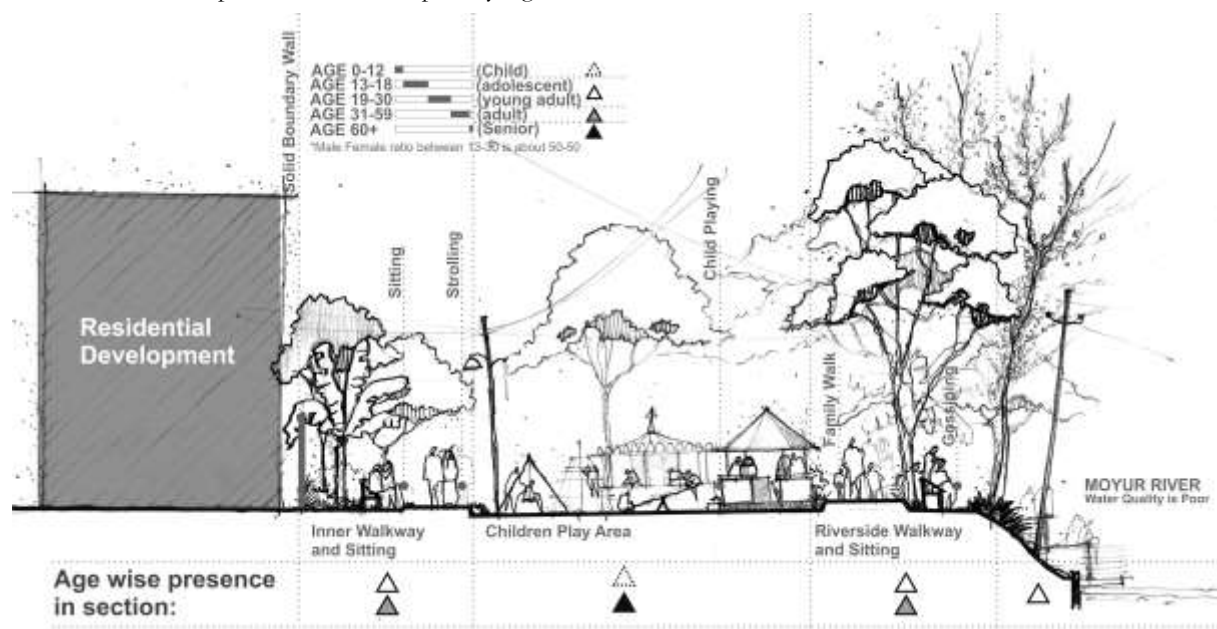


Figure 10. Expected heterogeneous activity

As mentioned earlier, this park is located by the river Moyur and is envisioned as an active waterfront park (Figure 10). But due to its controlled environment, the general public is deprived of the opportunity to enjoy this intended waterfront free of cost. In different examples around the world, riverfront developments and activities are

mostly 'open to all' (Un-Habitat, 2020; Getachew et al., 2022). Creating such a controlled environment excluded marginalized people and even the general population from having access to the Moyur River. In addition, despite being a waterfront park, the safety of children has not been considered while developing roadways and other elements along the water in numerous locations.

In addition, with all these shortcomings, the celebration of Bangla New Year is the most prominent event that is organized by the park authorities every year. But the number of visitors is not that satisfactory. There is no dedicated performing platform designed by the public body to host diversified events or cultural activities. Apart from taking some small initiatives like mini zoo construction, food stall renovation etc., no significant other steps have been taken by the private authority to further enhance the activity inside the park.

Table 2. Challenging factors of accessibility for marginal people in Linear Park, Khulna

Indicators	Design Aspect	Management Aspect	Challenges of Accessibility
<i>Physical Access</i>	No pedestrian connection for neighboring community Single gateway limits to access and disperse Symbolic and physical exclusion by elevated gateway Inapproachable green space and designed areas by walkable pathway Features are not convivial to access	No initiatives are observed to solve the inaccessible features Universal accessibility is not acknowledged and solved Unwillingness to inform the public body for necessary up-gradation	Pedestrian friendliness Walkability Multiple access Universal accessibility Accountability of private body Design sensibility
<i>Social Access</i>	Neighborhood exclusion reduce social surveillance Solid boundary wall develops impermeable visual connectivity Lack of diversified features to promote heterogeneity Budgetary constraint to build the perforated boundary Insufficient lighting fixtures Absence of neighboring community integration	Tolerating homogenous user's unsocial activity Lack of concern to improve lighting condition Insufficient surveillance measures (CCTV, Security guard)	Heterogeneity Permeability Control measure Surveillance Community belongingness
<i>Access to Activity</i>	Inappropriate functional distribution generating inactive areas Universal design considerations are absent Insufficient features compared to large areas Irrespective of approaching riverfront Unsafe water edge for children No formal provision for street vendors	Charging unaffordable entry and rides fees Absence of park-side riverfront maintenance Maintenance deficiency of existing features Lack of upgrading and increasing new features Depriving street vendors from economic activity Profit oriented motives (Facility Commodification) Lack of initiatives to organize cultural and social events	Affordability Universal accessibility Liberal mindset of private body Maintenance Feature commodification Flexibility of features
<i>Access to Information</i>	Absence of participatory approach in design and development Resource limitation of manpower Financial limitation in implementation Lack of wider social vision	Absence of signage to guide Lack of initiatives for raising public awareness	Participatory design Information communication User awareness Capacity buildup

Access to Information

This attribute of 'access' allows us to describe the 'public space' as a place where all members of society can contribute ideas about its development and use processes (Ercan, 2010). Hence, crucial discussions and information, such as the decision-making stage of developing a public space and the design scheme preparation process, must be open to all. However, there was no participatory event during the planning phase of Khulna Linear Park to accommodate the insights of society's underserved people. Even, local people are treated as marginalized by getting deprived from the development process. Only 24% of the interviewed users of the park heard about the initiatives of KCC to develop the area. None of them participated in any phase of design or planning discussion. On the other hand, according to the statement of the authority (KCC), it was quite challenging to accommodate general people's feedback in the development phase. This is one of the vital aspects that lie behind the exclusionary nature of this park. From the key informant interview, the limitations are specified as scarcity of the manpower of the municipal authority, economic insolvency of the governing body, narrow political vision, and stratified mindset of the user are responsible for avoiding public participation in the design process.

In the use phase, the user did not remain up-to-date with political and cultural events through posters and verbal announcements. However, very few cultural events took place in the park. Furthermore, necessary instructions like signage, area map have not been provided by the private authority to inform and guide the users inside the park.

Summary of the findings indicate that design and management aspects addressed by public and private bodies have contributed to promoting exclusion in Linear Park, Khulna. We can categorize these influencing factors, which can be termed as the 'challenges of accessibility' (Table 2).

Conclusion

In light of the data, it's possible to conclude that marginalized people are being excluded from the Linear Park because of design and management challenges. KCC expected to revitalize the Mayur River and created a public park to meet the city's growing demand for recreational space. However, due to their resource limitations, they were forced to lease the park after design implementation. As a result of the profit-driven nature of the private authority management, this park has become increasingly homogeneous.

From the accessibility analysis of the case study, it is revealed that marginal people are excluded from access both physically and socially. Moreover, they are not prominently involved in diversified activities and have no participation in accessing information and design activities. Physical accessibility of the park is challenged by design aspects like pedestrian friendliness, universal accessibility, and means of access. However, private authorities lack the accountability and willingness to minimize those physical barriers. Furthermore, the social ambience of the park is hampered by the absence of heterogeneity. Here, the permeability of the peripheral boundary plays a key role in minimizing social surveillance. Since there is no visual connection, the surrounding community also does not have any belongings with the inner environment. Apart from the KCC initiative, private authority is also quite reluctant to manage these situations and accentuate different control measures like lighting, posting sufficient security guards and CCTVs. Moreover, it is also observed that activities inside the park are not widely performed by different marginal groups. Most of the amenities and functions constructed by the city authority are not designed as flexible and universally accessible. Space and feature commodification by private authority excludes the environment from the urban poor since they are unaffordable to access and use. Besides, the lease holder prioritizes economic beneficiaries without properly operating the maintenance. In terms of design participation, from the early period of the development phase, people were not involved in the design process. Like many other city governing bodies in developing countries, KCC had serious financial and manpower limitations for conducting participatory design approaches. Even though private authority has the right to run the park, they don't give visitors any information to help them figure out how to use the park.

As evidenced by this study, there has been a clear conflict between the social value of the public space and the economic interests of the park's stakeholders. However, the commodification of urban space is unavoidable in developing countries due to the limited resources of the local government. Capacity building of the local authority is required to accelerate the traditional role in the provision and management of public space. Moreover, in terms of contracting out of the management, the rules and responsibilities of the private body need to be specified in the

leasing documents. The public-private partnership should not diminish the 'Publicness' and may appear as a potential strategy to accelerate this prominent characteristic of public space. Collaborative engagement between public and private bodies, active participation by all stakeholders in decision-making at all stages of development and use phase, as well as assuring people's 'Access to Design', may ensure that public space has a socially valuable purpose for everyone. The findings of this study may assist urban planners, architects, and government decision-makers in reforming design and management strategies and providing viable, accessible, and inclusive public space for all.

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Conflict of Interests

The author declares no conflict of interest.

References

- Andersen, H. T., & Van Kempen, R. (2003). New trends in urban policies in Europe: evidence from the Netherlands and Denmark. *Cities*, 20(2), 77-86.
- Andersson, C. (2021). Public space and the new urban agenda. In *Public Space Reader* (pp. 420-425). Routledge.
- Atkinson, R. (2000). Combating social exclusion in Europe: the new urban policy challenge. *Urban studies*, 37(5-6), 1037-1055.
- Badshah, A. A. (1996). Our urban future: new paradigms for equity and sustainability. *London and New Jersey*, 1.
- Banerjee, T. (2001). The future of public space: beyond invented streets and reinvented places. *Journal of the American planning association*, 67(1), 9-24.
- Banerji, H., & Ekka, A. A. (2016). Designing Safer Cities-Review of Environmental Crime Prevention Strategies. *GSTF Journal of Engineering Technology*, 3(4), 25-32.
- Bangladesh Bureau of Statistics. (2011). *Population and Housing Census, Khulna, Bangladesh*. Statistics Division, Ministry of Planning, Government of the People's Republic of Bangladesh, .
- Barron, A. (2015). *Age-friendly seating and sense of place*. Manchester City Council.
- Benn, S. I., & Gaus, G. F. (1983). The public and the private: concepts and action. *Public and private in social life*, 3, 297-325.
- Carmona, M., Heath, T., Oc, T., & Tiesdell, S. (2003). *Urban spaces-public places: The dimensions of urban design*. Oxford: Architectural Press.
- Carr, S., Stephen, C., Francis, M., Rivlin, L. G., & Stone, A. M. (1992). *Public space*. Cambridge University Press.
- Creswell, J. (1998). *Qualitative inquiry and research design. Choosing among five traditions*. Sage Publications. Inc.
- De Magalhaes, C., & Trigo, S. F. (2017). Contracting out publicness: The private management of the urban public realm and its implications. *Progress in Planning*, 115, 1-28.
- Doherty, J., Busch-Geertsema, V., Karpuskiene, V., Korhonen, J., O'Sullivan, E., Sahlin, I., . . . Wagnanska, J. (2008). Homelessness and exclusion: regulating public space in European cities. *Surveillance & Society*, 5(3).
- Ekdi, F. P., & Çıracı, H. (2015). Really public? Evaluating the publicness of public spaces in Istanbul by means of fuzzy logic modelling. *Journal of Urban Design*, 20(5), 658-676.
- Ercan, M. A. (2010). *Less public than before? Public space improvement in Newcastle city centre*. Routledge.
- Gehl, J. (1987). *Life between buildings* (Vol. 23). New York: Van Nostrand Reinhold.
- Gehl, J., & Gemzoe, L. (2001). *New city spaces*. Danish Architectural Press.

- Das et al. (2022). Challenges of accessibility for marginal people in privately operated public space: linear park, Khulna as a case. *Khulna University Studies*, Volume 19(2): 111-125
- Getachew, A., Asnake, K., & Desta, H. (2022). Increasing the publicness of riversides as public space development on Kebena River, Addis Ababa, Ethiopia. *Environmental Systems Research*, 11(1), 1-14.
- Katz, C. (2006). Power, space, and terror: Social reproduction and the public environment. *The politics of public space*, 185, 105-110.
- Khaza, M. K. B., Rahman, M. M., Harun, F., & Roy, T. K. (2020). Accessibility and service quality of public parks in Khulna city. *Journal of Urban Planning and Development*, 146(3), 04020024.
- Khulna City Corporation. (2021, October 12). "Basic Statistics". http://www.khulnacity.org/content/index.php?page=about_kcc&zwc&pid=30
- Kohli, M., & Woodward, A. (2004). *Inclusions and exclusions in European societies*. Routledge.
- Kohn, M. (2004). *Brave new neighborhoods: The privatization of public space*. Routledge.
- Kurniawati, W. (2012). Public space for marginal people. *Procedia-Social and Behavioral Sciences*, 36, 476-484.
- La Rosa, D. (2014). Accessibility to greenspaces: GIS based indicators for sustainable planning in a dense urban context. *Ecological Indicators*, 42, 122-134.
- Loukaitou-Sideris, A., & Banerjee, T. (1998). *Urban design downtown: Poetics and politics of form*. University of California Press.
- Lynch, K. (1972). *The Openness of Open Space*.
- Maciejko, A., & Czajka, R. (2019). Accessibility of the Open Public Space in Cities. International Conference on Applied Human Factors and Ergonomics,
- Madanipour, A. (1996). *Design of urban space: An inquiry into a socio-spatial process*. Wiley.
- Madanipour, A. (1999). Why are the design and development of public spaces significant for cities? *Environment and Planning B: Planning and Design*, 26(6), 879-891.
- Madanipour, A. (2003). *Public and private spaces of the city*. Routledge.
- Madanipour, A. (2010). Marginal public spaces in European cities. In *Whose Public Space?* (pp. 111-130). Routledge.
- Madanipour, A. (2013). *Whose public space?: International case studies in urban design and development*. Routledge.
- Marcus, C. C., & Francis, C. (1997). *People places: design guidelines for urban open space*. John Wiley & Sons.
- Miao, P. (2011). Brave new city: Three problems in Chinese urban public space since the 1980s. *Journal of Urban Design*, 16(2), 179-207.
- Micha, E. (2021). The public space of capitalist society: Acts of inclusion and exclusion. In *School of Architecture* (Vol. 2020-2021, pp. 10): National Technical University of Athens.
- Mishu, M. R., Barua, U., & Stoican, I.-A. (2014). The changing nature of urban public places in Dhaka city. *Urbanism. Architecture. Constructions/Urbanism. Arhitectura. Constructii*, 5(4).
- Moran, M. R., Rodríguez, D. A., Cotinez-O'Ryan, A., & Miranda, J. J. (2020). Park use, perceived park proximity, and neighborhood characteristics: Evidence from 11 cities in Latin America. *Cities*, 105, 102817.
- National Recreation and Park Association. (2015). *Safe Routes to Parks: Improving Access to Parks through Walkability*.
- Németh, J. (2012). Controlling the commons: how public is public space? *Urban Affairs Review*, 48(6), 811-835.
- Németh, J., & Schmidt, S. (2007). Toward a methodology for measuring the security of publicly accessible spaces. *Journal of the American planning association*, 73(3), 283-297.
- Németh, J., & Schmidt, S. (2011). The privatization of public space: modeling and measuring publicness. *Environment and Planning B: Planning and Design*, 38(1), 5-23.
- Newman, O. (1973). *Defensible space: Crime prevention through urban design*. Collier Books New York.
- Niemelä, J. (2014). Ecology of urban green spaces: The way forward in answering major research questions. *Landscape and Urban Planning*, 125, 298-303.
- Oc, T., & Tiesdell, S. (1998). City centre management and safer city centres: approaches in Coventry and Nottingham. *Cities*, 15(2), 85-103.

- Pasaogullari, N., & Doratli, N. (2004). Measuring accessibility and utilization of public spaces in Famagusta. *Cities*, 21(3), 225-232.
- Rahman, K. A., & Zhang, D. (2018). Analyzing the level of accessibility of public urban green spaces to different socially vulnerable groups of people. *Sustainability*, 10(11), 3917.
- Reyes, M., Páez, A., & Morency, C. (2014). Walking accessibility to urban parks by children: A case study of Montreal. *Landscape and Urban Planning*, 125, 38-47.
- Saxena, R., & Kamal, M. A. (2018). The impact of built environment on crime prevention and safety in schools: An environmental-behavior design guidelines approach. *American Journal of Civil Engineering and Architecture*, 6(6), 260-270.
- Schmidt, S., & Németh, J. (2010). Space, place and the city: Emerging research on public space design and planning. *Journal of Urban Design*, 15(4), 453-457.
- Sorkin, M. (1992). *Variations on a theme park: The new American city and the end of public space*. Macmillan.
- Tabassum, S., & Sharmin, F. (2013). Accessibility analysis of parks at urban neighborhood: The case of Dhaka. *Asian Journal of Applied Science and Engineering*, 2(2), 48-61.
- United Nations Human Settlements Programme. (2020). *Public space site-specific assessment: Guidelines to achieve quality public spaces at neighbourhood level*. UN-Habitat. <https://unhabitat.org/public-space-site-specific-assessment-guidelines-to-achieve-quality-public-spaces-at-neighbourhood>
- Wolch, J. R., Byrne, J., & Newell, J. P. (2014). Urban green space, public health, and environmental justice: The challenge of making cities 'just green enough'. *Landscape and Urban Planning*, 125, 234-244.
- Yatmo, Y. A. (2008). Street vendors as 'out of place' urban elements. *Journal of Urban Design*, 13(3), 387-402.
- Yilmaz, M. (2018). Public space and accessibility. *ICONARP International Journal of Architecture and Planning*.
- Zhang, X. (2017). Identifying consumerist privately owned public spaces: The ideal type of mass private property. *Urban studies*, 54(15), 3464-3479.