

# Assessment of Public Perception of Public Toilet Use at Jessore Paurashava

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## ARTICLE INFO

### Article History:

Received: 22 September 2023

Revised: 28 October 2023

Accepted: 24 December 2023

Published online: 31 December 2023

### Keywords:

Public toilet

Jessore

Questionnaire survey

Maintenance

## ABSTRACT

Public toilets are seen as a crucial component of urban life. In every community, having access to public toilets is difficult. The community's everyday outside activities will be significantly hindered if public toilets are unavailable. In light of this knowledge, the study tried to assess the public perception of Jessore Paurashav's public toilet. A total of 196 people were surveyed by questionnaire. The study revealed that 74% of respondents travel regularly. Most of them (54%) travel for work purposes and stay outside of the home for more than 8 hours was found 75%. Also found that 62% of the public toilet users were from the age group of 30-39. Most public toilet users (43%) education level were secondary level, then primary level (18%). The occupation of public toilet users mainly was businessmen (44%), followed by day laborers (37%). 71% of respondents used public toilets outside their locality or workplace, and 68% of respondents said that the public toilet in Jessore Paurashava is inadequate. Based on the public perception at Jessore Paurashava and the physical observation 16 locations were suggested for installing new public toilets which were mainly Bazar/Market, Bus Station, and Govt. Office.

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## 1. INTRODUCTION

The public toilet is an inevitable urban structure serving the urban inhabitants' health, sanitation, and well-being. A public toilet is a room generally used by urban people for urination and defecation, which consists of one or more water closets and squatting pans (ASEAN, 2016) and they are established, maintained, and possessed by Public Agencies (YARRA city council, 2017). Urban areas are subject to commuting large numbers of populations from inside and outside the premises. The commuters range from office-based employees to workers inside or outside the factories. Moreover, the floating population of urban areas also uses the urban streets as their accommodation. Lack of provision for adequate public toilet facilities thus forces them to urinate and defecate in open spaces, which pollutes the urban environment and makes it unlivable (Disaster Management Watch, 2018).

Usually, street workers, homeless people, passing by people, etc. are the main user of public toilets (Moreia 2022; Frye *et al.* 2019, Drewko 2007). In the absence of a public toilet people may urinate on walls and sidewalls which may affect

human health and cleanliness (Stanwell-Smith 2010). Hossain *et al.* (2017) reported that male users were used to urinating in open places, which led to diarrheal. The rickshaw puller was the main group of roadside urinating due to insufficient public sanitation facilities (Hasan *et al.* 2018).

The presence of public toilets and their proper accessibility help eliminate the degradation of the urban environment through appropriate management of human excreta, which is part of the Sustainable Development Goals (SDG). According to SDG Goal 6 and target 6.2, access to adequate and equitable sanitation and hygiene for all and an end to open defecation need to achieve by 2030. Bangladesh has made remarkable progress in eliminating the practice of open defecation. But climbing the 'sanitation ladder' still represents a challenge. Access to sanitation remains moderate at 55.9 percent. In Bangladesh, there is a high proportion of shared toilets, particularly in urban slums. (BBS., & UNICEF., 2014). Bangladesh must formulate its development goals inconsistent with SDG as a developing country. The Bangladesh government has been making provisions for providing sanitation facilities for a long time through its City

Corporation and Paurashavas. The government provided public toilets in different urban areas of Bangladesh. However, it has been seen that people have a negative attitude toward using those facilities primarily because of their dirty and unhealthy environment. Moreover, the design and location of those public toilets culturally discouraged women, children, the elderly, and the disabled from using public toilets (Disaster Management Watch, 2018). Improper management of the public toilets arising from the blurred responsibility even worsened the situation.

Though Jessore is a big and busy city, it requires public toilets like other major cities. Jessore connects the most prominent land port, Benapol, with the country. People of Bangladesh and India travel to both countries through this land port. That's why Jessore city is always active and busy. So, it is required to ensure that the people of Jessore city and visitors have the facility of public toilets. As part of the municipality's responsibility, Jessore Paurashava established nine public toilets in different places in the city. Seven of these nine public toilets are active, and 2 of them are out of function. However, no such study was done to reveal that the provided public toilet is enough for the users. For this reason, the present study is carried out on public toilet uses and public toilet demand based on public perception at Jessore Paurashava.

## 2. MATERIALS AND METHODS

### A. Study Area

This study commenced in the Jessore Paurashava area of the Jessore district which is a class "A" Paurashava (LGED, n.d.). The position of Jessore's on the world map is from 22°49' north latitude to 23°23' north latitude and from 88°50' east longitude to 89°34' east longitude. Jessore Paurashava is a first-class Paurashava with 14.72 square kilometers. It consists of 9 wards which are Barindi Para, Khaldhar Road, Jaikhana Ghop, Puratan Koshba, Khorki, Raypara, Shongkorpor, Bejpara, and Hustola. The population of Jessore Paurashava is 2,86,163.

### B. Sample size and Data Collection

A proper sampling method is essential to maintain the reliability of the study and avoid bias in the selection process. The formula of Bill Godden for the infinite population has been used to determine the sample size (Godden 2004). The sample size was estimated at 196. Primary data has been collected from stakeholders through questionnaire surveys and physical observation. The study was conducted to collect the overall perception of public toilet usage and determine the present condition and future demand from the public point of view of Jessore Paurashava irrespective of public toilet users/non-users. Data was collected through a questionnaire survey from random people who visited Jessore Paurashava. The questionnaire survey included preliminary information

about the respondents, such as the socio-economic condition of the respondents, information on sanitation facilities respondents, information on public toilet utilization, frequency and causes of using a public toilet, type of public toilet they used, satisfaction level after using the public toilet, causes of satisfaction and dissatisfaction, the demand of the respondent about public toilet has been revealed through this aspect. The questionnaire also included opinions about the suitable location of a public toilet, satisfaction with the usage charge, type of improvement they need for better service of a public toilet, amount of more service charge for improved service, the idea for maintenance of public toilets ensured, overall perception and suggestion. The questionnaire consisted of a total of 29 questions. Data processing and analysis were carried out using Microsoft Office Excel 2019.

## 3. RESULTS AND DISCUSSION

### A. Demographic Data

It was found that the maximum respondents were from the 30–39-year age group (49%) and the minimum respondents were from the 50–59 age group, as shown in Figure 1(a). It also found that among all the respondents, 74% were male, 25% were female, and 1% were transgender shown in Figure 1(b). Around 65% of the respondents reside in the village area of the Jessore district, and 35% of the respondents live in Jessore Paurashava, as shown in Figure 1(c). About 38.13% of the respondents had an income between 10,000- 20,000 (Table 1) which is higher than Bangladesh's nominal income per capita (BBS, 2021). However, Hossain et al. (2016) found that 5% of respondents have income >10000TK, and 60% have income <2000TK in rural areas of southern Bangladesh.

**Table 1**  
Income of the respondent

Household Monthly income	No of Respondent	Percentage
Below 3000	4	2.50%
3000-5000	31	19.38%
5000-10000	36	22.50%
10000-20000	61	38.13%
Above 20000	28	17.50%

### B. Frequency of Public toilet usage

It was seen that 74% of respondents travel regularly shown in Figure 2 (a), of which approximately 87% are male, and 13% are female (Figure 2 (b)). A similar study in Kushtia found that 66% of public toilet users were male, and 34% were female (Disaster Management Watch, 2018). Most public toilet users were from the age group of 30-39, which is 62% (Figure 2 (c)).

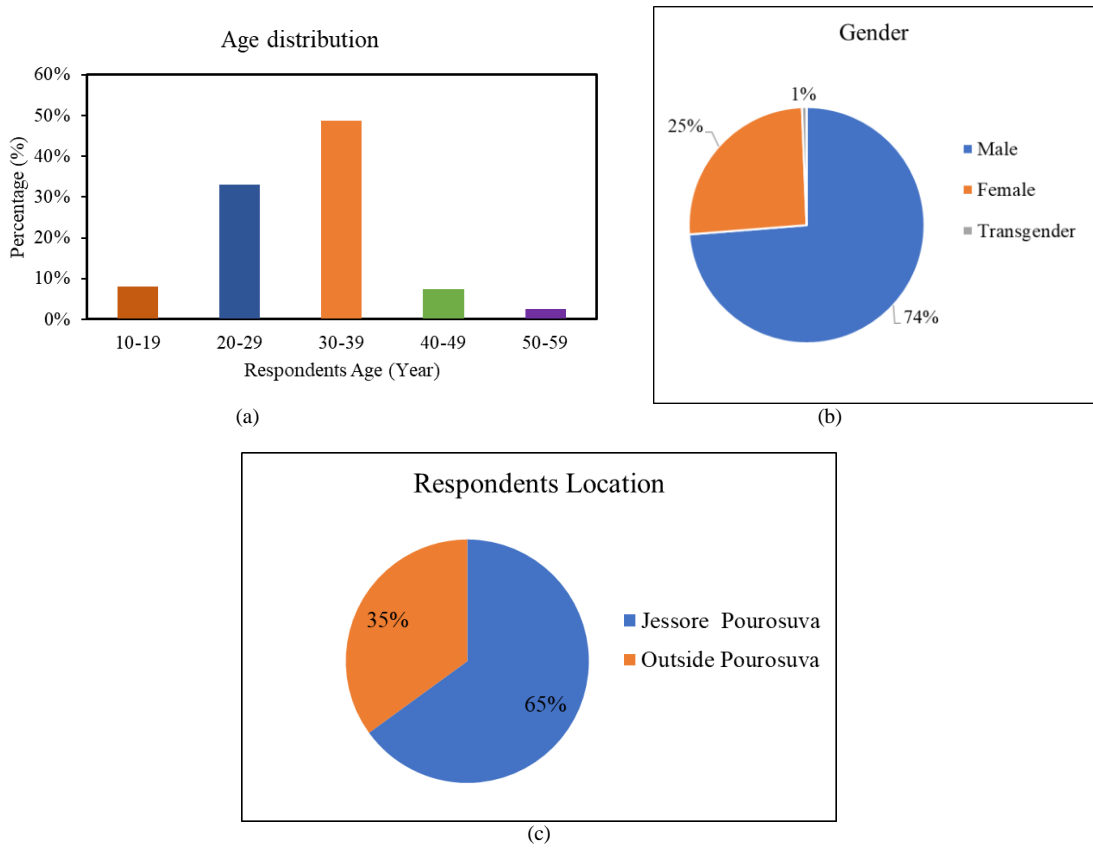


Figure 1: Demographic data

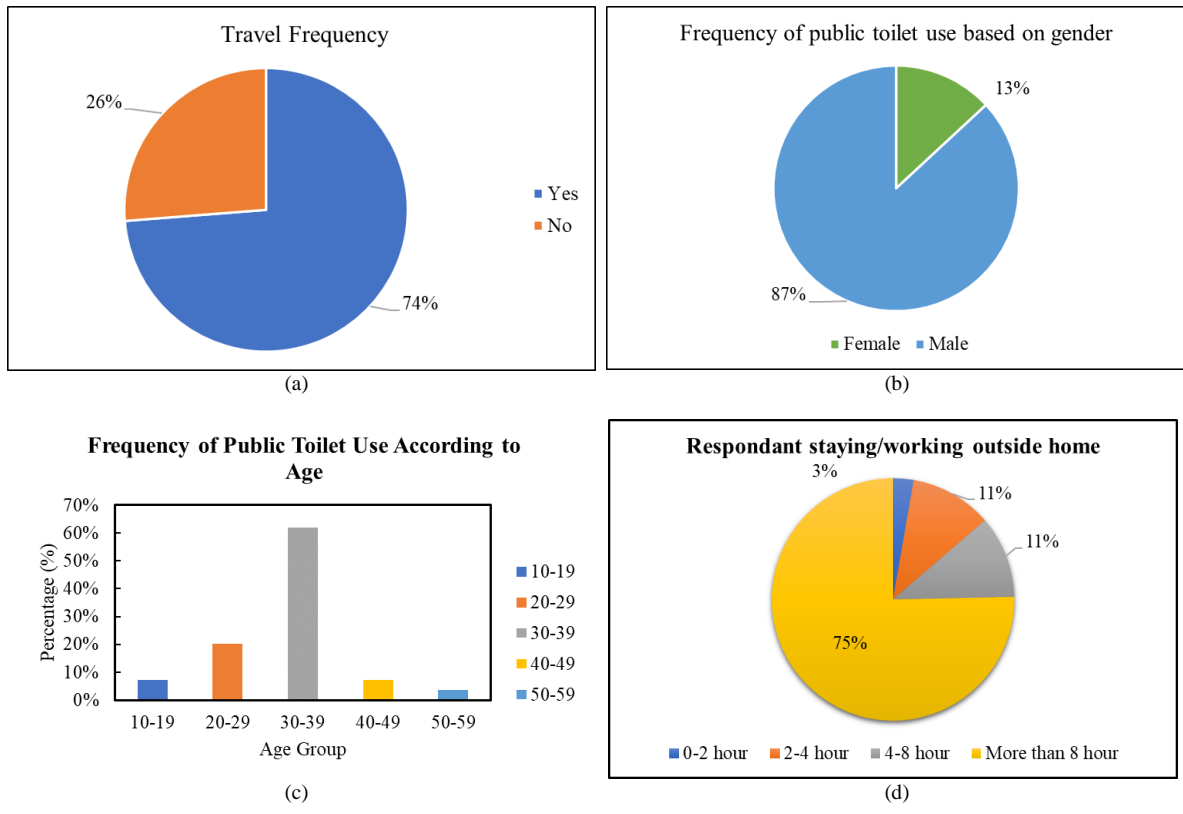


Figure 2: Frequency of Public toilet usage

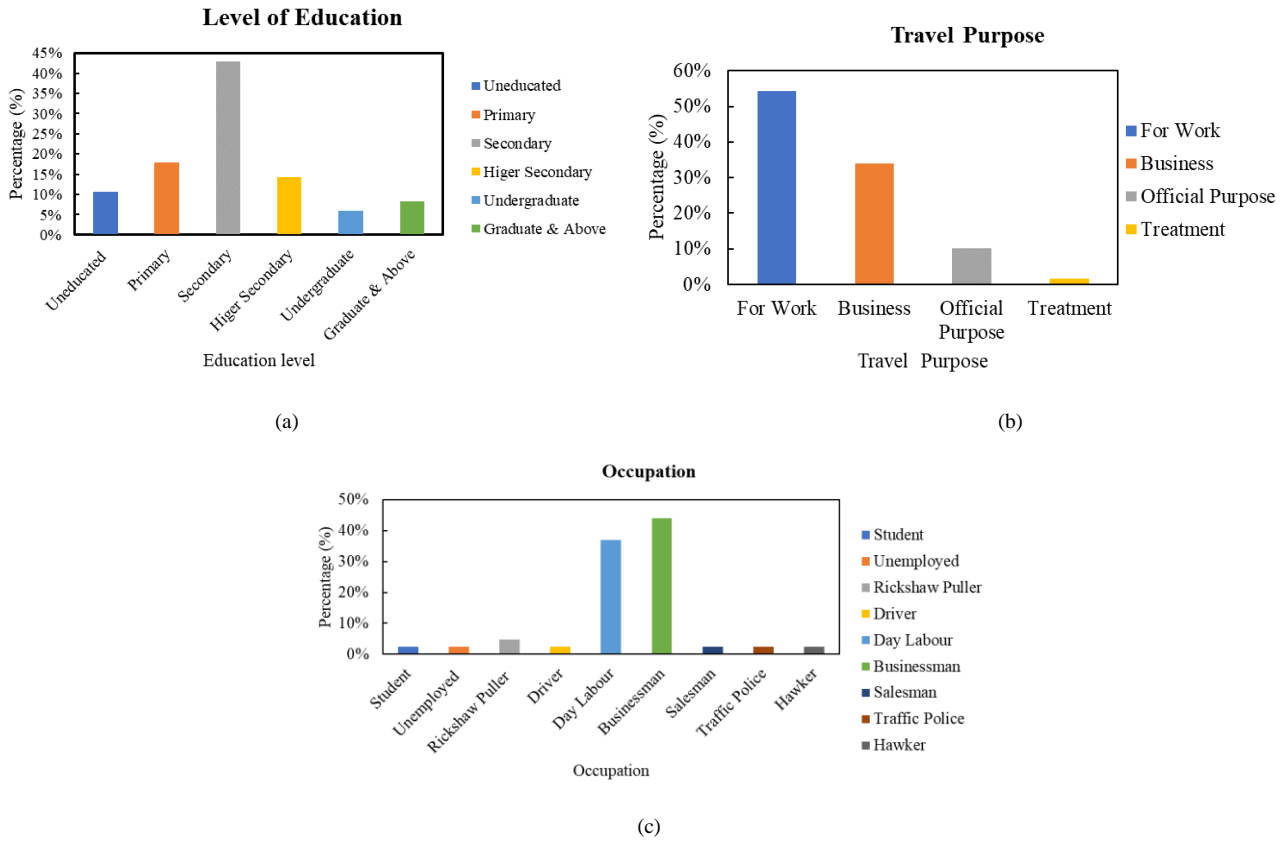


Figure 3: Frequency of User According to Educational Qualification, Travel Purpose, and Occupation

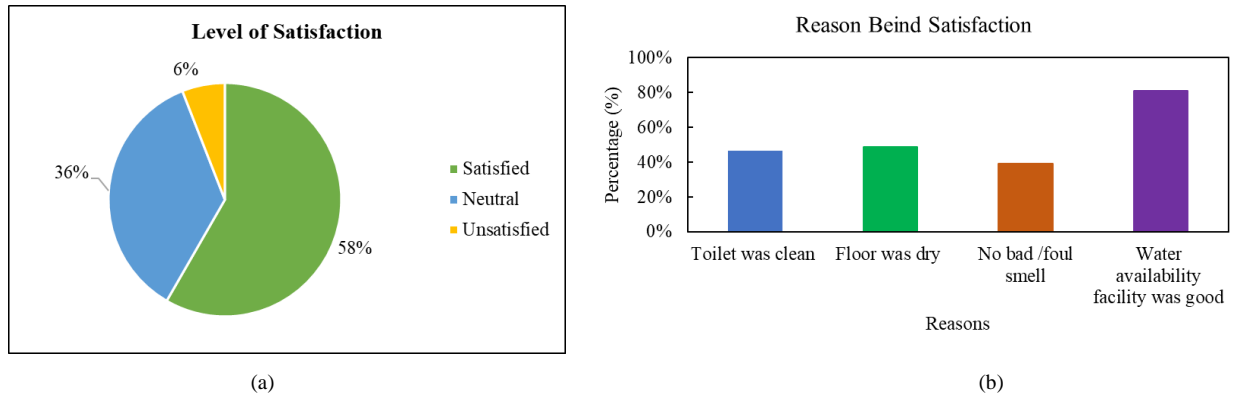


Figure 4: Satisfaction Level and its reason

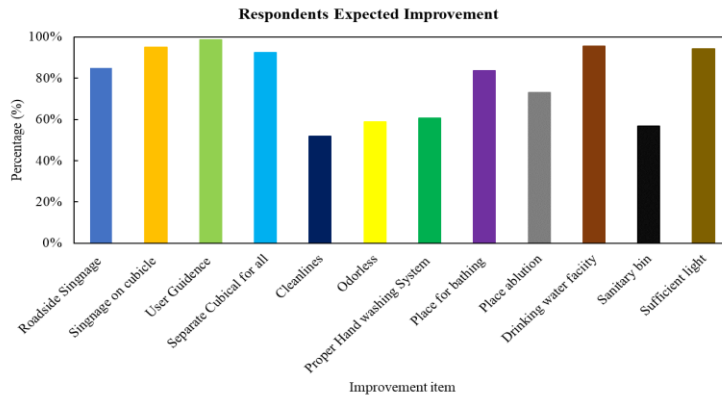


Figure 5: Respondents Expected Improvement

Similarly, most of the respondents (44%) were from the same group in a similar study done in Kushtia. (Disaster Management Watch, 2018). Around 75% of respondents were found to be working/staying outside the home for more than 8 hours, as shown in Figure 2 (d). A similar study in Kushtia has also been conducted and found that most of the respondents (65%) stay out of the home for more than 8 hours (Disaster Management Watch, 2018).

For most of the users (43%) education level was found to be secondary level, then primary level (18%), as shown in Figure 3 (a). A similar study at Kushtia found that most public toilet users' education level was secondary to primary (Disaster Management Watch, 2018). Also, 54% of toilet usage occurs during work-related trips (Figure 3 (b)) which is similar to a study done in Kushtia. (Disaster Management Watch, 2018). Business-purposed trips follow this with 34%. In terms of occupation, most of the respondents were businessmen (44%) than day laborers (37%), as shown in Figure 3 (c), which is similar to the study done in Kushtia. (Disaster Management Watch, 2018).

**C. Operation and Maintenance of Public Toilet**

Figure 4 (a) shows that 58% of respondents were satisfied with the existing public toilet use, which is similar to the study done in Kushtia. (Disaster Management Watch, 2018). The respondent's satisfaction levels differ because of location, perception, and socio-economic reasons. It is seen that 81% of the respondents are satisfied with water availability, and nearly 50% of respondents are happy with dry floors and cleanliness (Figure 4(b)). Similar results were found in Kushtia also. (Disaster Management Watch, 2018)

For the improvements of existing as well as new public toilets, respondents expected improving cleanliness (98%), odorless (92%), functional toilet equipment (96%), 24-hour open service (94%), sanitary bins (59%), space for keeping belongings (57%), sufficient light (61%), enough running water (84%), ventilation (73%), proper hand washing system (52%), signage on cubicle (95%) and roadside signage (85%) as shown in Figure 5.

**D. Demand for Public Toilet**

It was seen from Figure 6 that 71% of respondents used public toilets outside their locality or workplace. This fact strengthens this study's fundamental assertion - demand for public toilets in Jessore Pauroshava was considerable.

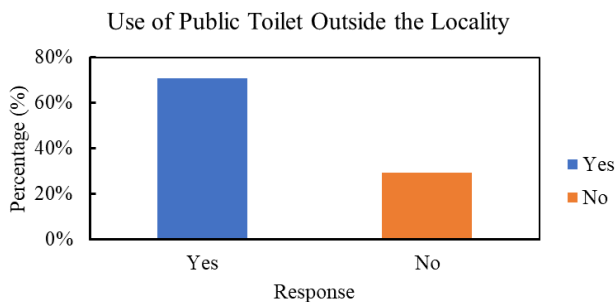


Figure 6: Use of Public toilet outside the locality

Also, 68% of respondents (Figure 7) said that the public toilet in Jessore Paurashava is inadequate. These findings conclude that public toilets were not adequate in this municipality. A similar study in Kushtia (Disaster Management Watch, 2018) reported that nearly 55% of respondents agreed that there are not enough public toilets.

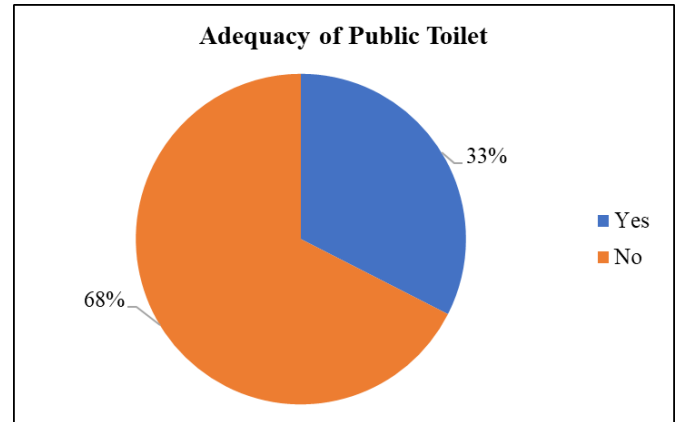


Figure 7: Adequacy of Public Toilet

Based on public opinion, some areas of Jessore Paurashava are the most suitable places for establishing new public toilets. It is found that the public mainly demands a public toilet in crowded and busy areas such as bus stands (63%), railway stations (59%), airports (52%), markets (59%), government offices (60%) and park (63%). (Figure 8).

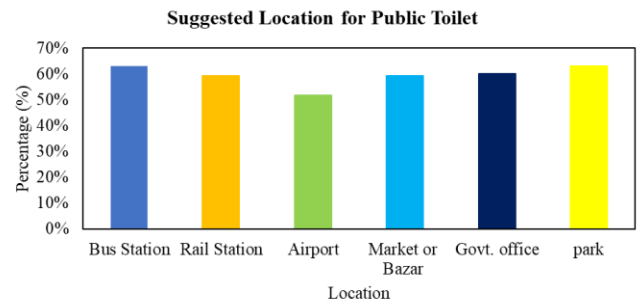


Figure 8: Suggested Location for Public Toilet

From the physical observation, 16 locations were listed in Table 2 based on the public perception at Jessore Paurashava for the proposed public toilet installation. These locations were selected according to the type of the place and by considering the future demand.

**Table 2**  
Proposed Public Toilets location in Jessore Paurashava

No	Location	Coordinates	Type of Place
1	Khoyertola Bazar	23°10'55.8"N, 89°11'25.9"E	Bazar/Market
1	Chuadanga Bazar	23°10'12.2"N, 89°12'11.6"E	Bazar/Market
3	Pauro Bazar	23°09'50.7"N,	Bazar/Market

		89°12'18"E	
4	RN-road Bazar	23°09'48.9"N, 89°13'07.8"E	Bazar/Market
5	Ghop Central Road Bazar	23°10'17.4"N, 89°12'35.6"E	Bazar/Market
6	Rail Station Bazar	23°09'36.5"N, 89°12'36.8"E	Bazar/Market
7	Kali Bazar	23°10'09"N, 89°12'50.1"E	Bazar/Market
8	Jessore-Satkhira Bus Station	23°08'39.8"N, 89°11'47.5"E	Bus Station
10	Jessore Inter-district Bus Station	23°08'36.9"N, 89°12'15.9"E	Bus Station
11	Jessore Bus Terminal	23°08'38"N, 89°12'57.8"E	Bus Station
12	Monihar	23°09'40.3"N, 89°13'22.5"E	Bus Station
13	DC Office	23°10'4"N, 89°112'30.9"E	Govt. Office
14	District Court	23°09'54.3"N, 89°12'24.3"E	Govt. Office
15	BRTA	23°09'58.6"N, 89°12'55.5"E	Govt. Office
16	Regional Passport Office	23°09'23.6"N, 89°13'15.8"E	Govt. Office

#### 4. CONCLUSION

A questionnaire survey was done among the people who visited Jessore Paurashava. All findings are summarized below:

- 74% of respondents travel regularly. Most of them (54%) travel for work purposes and stay outside of the home for more than 8 hours was found 75%.
- It was found that 62% of the public toilet users were from the age group of 30-39, which is the majority group. Most public toilet users (43%) education level were secondary level, then primary level (18%).
- The occupation of public toilet users mainly was businessmen (44%), followed by day laborers (37%).
- 71% of respondents used public toilets outside their locality or workplace, and 68% of respondents said that the public toilet in Jessore Paurashava is inadequate. These facts enhance the proposition that there is considerable demand for public toilets in the study area.

- According to respondent choice, the preferred location for a public toilet is the park and bus station (63%), followed by govt. office (60%), market and rail station (60%), and airport (52%).

From the above discussion, it can be concluded that the public toilet in Jessore Pourashava is an important part of city life as users travel regularly and stay more than 8 hours outside the home. Especially businessmen, and day laborers use the public toilets regularly. Interestingly the users were satisfied with existing public toilet use. However, respondents expected to improve in terms of cleanliness, odorless, functional toilet equipment, 24-hour open service, enough running water, ventilation, signage on cubicles, roadside signage, etc. Also, the questionnaire survey revealed that public toilets were inadequate in this municipality. Based on the public perception at Jessore Paurashava and the physical observation 16 locations were suggested for installing new public toilets which were mainly Bazar/Market, Bus Station, and Govt. Office. Thus, the findings of this study may help the Jessore Porashava authority to plan for the installation of new public toilets as a part of the achievements of the SDG goal.

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