



# Toilet:

A Final Frontier  
of PWD  
Accessibility

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2023



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## Letter from the ED

Bhutan has made significant progress towards achieving Sustainable Development Goal (SDG) 6. In 2022, the country was declared open defecation-free (ODF). And yet, the accessibility of WASH facilities, especially toilets, for PWDs has been overlooked. This oversight has severe implications for the health and well-being of this marginalised group and poses a major obstacle to achieving universal access to sanitation, which goes against the principles of Gross National Happiness (GNH).

The Population and Housing Census of Bhutan 2017 reported 2.1% of the population as disabled, but the actual number of PWDs might be higher thanks to a growing elderly population and people who pick up disabilities due to illness and accidents. Failure to provide accessible toilets affects not only physical health but also diminishes the quality and dignity of life for PWDs, often leading to dependence, neglect, and violence. Additionally, the lack of accessible facilities exposes them to various health risks. As well, family members of PWDs and the elderly often become equally home-bound to provide round-the-clock care.

To overcome these accessibility challenges, there was a need to fully understand existing policies and guidelines, and to promote barrier-free designs for toilets in homes and schools, with the aim of making them accessible to PWDs. Our research confirms that for all of Bhutan's significant strides in sanitation coverage, accessibility for PWDs is not adequately considered. This issue also extends to schools, including Special Educational Needs (SEN) schools, where only a few have proper accessible toilet facilities.

The research recommends ensuring that homes and schools have accessible toilets to empower PWDs and provide them with the means to lead healthy and dignified lives. Awareness and knowledge about accessibility are currently lacking, leading to a dearth of accessible toilets in Bhutanese homes, even in households with PWD family members. Providing barrier-free infrastructures in SEN schools can enhance enrollment, reduce dropouts, and empower children with disabilities.

Despite the existence of relevant policies and guidelines, a lack of action hinders progress. The research calls for a change in perspective, emphasising that accessibility is a fundamental right for every individual, not merely an act of sympathy or charity. Every household should be educated and encouraged to modify existing toilets to be barrier-free, ensuring accessibility for all family members, including those with disabilities or older family members. Likewise, every SEN school, if not all schools, must have at least one toilet unit designed to accommodate different disabilities adequately.

In conclusion, this publication urges Bhutan to mainstream accessibility efforts and address the needs of PWDs as an integral part of the country's commitment to sustainable development and GNH. Embracing inclusivity in sanitation facilities will create a more equitable and compassionate society, fulfilling the vision of Gross National Happiness for all its citizens.

# Executive Summary

This report presents the findings of a comprehensive study on the accessibility of public toilets for persons with disabilities (PWDs) in Bhutan. The research aimed to identify the challenges faced by PWDs while using public toilets and to develop standards for creating inclusive and accessible toilet facilities. The study was conducted by the Bhutan Toilet Organisation, a non-profit civil society organisation dedicated to advancing toilet hygiene and good habits in the country.

The research is in two parts. In the first, it conducted a literature review of existing accessibility standards, consultations with experts, and a survey conducted across three western dzongkhags (Thimphu, Paro, and Punakha). A team of trained enumerators assessed 130 publicly-accessible toilets based on eight key accessibility criteria, including universal design, toilet stalls, grab bars, wash basins, lighting, slip-resistant floors, signage, and door features.

The results revealed significant challenges in toilet accessibility for PWDs in Bhutan. Many toilets lacked features crucial for accommodating users with disabilities, such as widened entrance doors, sufficient space near the toilet seat for wheelchair transfers, and sturdy grab bars. Additionally, inadequate lighting and slippery floors were common issues.

The second part of the research gathered insights from Bhutanese living with mobility disabilities regarding their perceptions of toilet accessibility. While most respondents expressed dissatisfaction with the current state of accessibility, many acknowledged that their perceptions were influenced by their avoidance of public spaces due to the lack of inclusive facilities.

Based on the research findings, the report offers several policy recommendations to address the accessibility gaps. It advocates for the review and implementation of the Bhutan PWD Toilets Standards at a national level, requiring new toilets to meet these standards and existing facilities to be upgraded. The government is encouraged to provide financial incentives and assistance to businesses and organisations seeking to make their toilets accessible.

Furthermore, the report suggests ongoing research to fine-tune the accessibility standards with input from PWDs across the country. It emphasises the importance of public awareness campaigns and policy-maker advocacy to garner support for accessible toilets. Infographic videos and personal stories from PWDs can help raise awareness and create a positive impact.

Overall, the research sheds light on the critical need for accessible public toilets in Bhutan. By adopting the proposed standards and recommendations, the nation can strive towards creating a more inclusive environment that ensures independence, safety, and dignity for all users, regardless of their abilities

### **Summary Findings from the PWD Accessibility Standards Survey:**

- i. Only 5.3% of toilets in Thimphu, Paro, and Punakha have grab bars to help people in wheelchairs transfer to the toilet seat. This is a major barrier to accessibility, as grab bars can help people with disabilities to maintain their balance and prevent falls.
- ii. Only 36.1% of toilets in Thimphu, Paro, and Punakha have soap that is accessible to someone in a wheelchair. This means that many people with disabilities may not be able to wash their hands with soap after using the toilet.
- iii. Only 45.9% of toilets in Thimphu, Paro, and Punakha have lighting that is adequate. This can make it difficult for people with disabilities to see and use the toilet.
- iv. Only 45.9% of toilets in Thimphu, Paro, and Punakha have floors that are slip-resistant. This can be a safety hazard for people with disabilities, as they may be more likely to slip and fall.
- v. Only 15.8% of toilets in Thimphu, Paro, and Punakha have hygiene signage in the toilet. This can lead to people with disabilities not washing their hands properly after using the toilet.

Based on enumerator responses, only 20.3% of toilet facilities in Thimphu, Paro, and Punakha are designed in an inclusive and considerate manner, taking into account the needs of all users. This means that many people with disabilities may not feel comfortable using the toilet.



# Introduction

In general, public toilets in Bhutan are lacking, even for those without disabilities. These toilets tend to have poor sanitation, poor location consideration, inadequate infrastructure, and poor maintenance. Support from international organisations have tried to address these weaknesses, but so far, the majority of the effort has been solely on basic hygiene (Sakas et al., 2022). The Water, Sanitation, and Hygiene (WASH) program is a good example. Government effort in this space is also mainly focused on addressing basic issues such as reducing open defecation and urination (RGoB, 2017).

Meanwhile, efforts in disability inclusion have so far mostly focused on making health and education more accessible. Most public spaces remain inaccessible to PWDs without assistance.

Bhutan is one of only 10 countries yet to ratify the United Nation Convention of the Rights of Persons with Disabilities (UNCRPD), which recognises people with disabilities (PWDs) as equal and full members of society, not subjects of burden or charity (Lamsang, 2020). Estimates of PWD population in Bhutan vary between 15 000 (PHC 2017) and 21 000 (Dorji & Solomon, 2009).

# Objectives

- i. Identify the specific challenges faced by persons with disabilities (PWDs) in using public toilets in Bhutan.
- ii. Develop a set of accessibility standards for public toilets in Bhutan that are inclusive and considerate of the needs of PWDs, in collaboration with the Bhutan Toilet Organisation.
- iii. Conduct a survey of publicly-accessible toilets in three western dzongkhags (Thimphu, Paro, and Punakha) to assess their compliance with the developed accessibility standards.
- iv. Analyse the survey data to present the findings on the accessibility of public toilets for PWDs in Bhutan, identifying areas where improvements are needed.
- v. Gather perceptions of toilet accessibility in public spaces among Bhutanese with disabilities through purposive sampling and qualitative research.
- vi. Recommend policy changes and interventions to improve toilet accessibility in Bhutan, including the adoption of the Bhutan PWD Toilets Standards at a national level and providing incentives for businesses and organisations to upgrade their toilet facilities.
- vii. Advocate for public awareness campaigns to raise awareness about the importance of accessible toilets and garner public support for inclusive facilities.

# Methodology

In this paper, we have looked at the literature to review toilet standards from across the world, with the aim of creating a set of standards that will make all Bhutanese toilets PWD-accessible. We also conducted a survey of toilets in public spaces in Thimphu, Paro, and Punakha, comparing them to our new standards. This tells us what portion of toilets in these dzongkhags can be considered PWD-accessible, and more importantly, the survey tells us the most common reasons for Bhutanese toilets being inaccessible.

# Setting Standards

Without previous research on public toilets in Bhutan, it is difficult to address the specific issues the PWDs face in using public toilets in Bhutan. The accessibility features discussed in this paper that make up the toilets accessibility standards are therefore based largely on the literature review. However, these standards were developed in close coordination with the Bhutan Toilet Organisation, a non-profit civil society organisation that has pioneered toilets in Bhutan. The standards of the literature reviews have therefore been vetted by real life experience from the ground.

1. **Universal Design:** Public toilets should be designed in a way that ensures that everyone, regardless of their age, gender, or ability, can use the toilet with independence, safety, and dignity. The design should be inclusive and considerate of all users' needs.
2. **Toilet Stalls:** The toilet area and doorway area should be wide enough (atleast 80mm) for the wheelchair users to pass through and then move around to access the toilet facilities such as wash basins and toilet paper dispensers. There should be enough space near the toilet seat for a wheelchair user to transfer to and from the toilet seat. The availability of wheelchair assistance, such as a ramp towards the toilet, should also be provided.
3. **Grab Bars:** The toilet should have a secure and stable seat with grab bars around it. A sturdy grab bar that can bear the weight of a person is an essential feature to make the toilet more accessible for many types of disabilities.
4. **Wash Basins:** Wash basins and hand washing facilities (Soap and drying option) should be appropriately placed and easily accessible, even for those using a wheelchair. Handwashing with soap is a critical hygiene target and should be made accessible for all users.
5. **Lighting:** Adequate lighting, including emergency lighting for people with visual impairments, should be provided to make the toilet accessible to all users.

6. **Slip-resistant Floors:** Floors should be slip-resistant to reduce the risk of accidents and injuries, especially for users with mobility impairments.

7. **Signage:** Clear and visible signage should be placed outside and inside the public toilet. Wayfinding signage can help the public locate the toilet facilities, and safety signage can ensure that potential hazards such as slipping on wet floors can be easily avoided. Hygiene signage, along with clear instructions on how to use it, can promote good hygiene.

8. **Door Handles and Locking Mechanism:** The door location and side clearance on the pull side should have easy-to-use handles installed. The door locking mechanism should be easy, and enough door length should be provided for appropriate privacy.

## Survey of Toilets in Thimphu, Punakha, and Paro

To put the new Bhutan PWD Toilets Standards into action, a survey was conducted of all publicly-accessible toilets in three western dzongkhags. The location of the surveys was limited to western Bhutan for budget and logistical reasons. A “publicly-accessible toilet” includes all public toilets and toilets in public areas such as Dzongs and parks, but also includes toilets in businesses that are open to the public, such as restaurants, hotels, cafes, and banks.

First, the team of data enumerators from Nyingnor Data established a list of such toilets in these dzongkhags. Then a survey form was built based on the 8-point standard from the previous section. A team of over a dozen young enumerators were trained at Nyingnor’s offices for half a day on data collection best practices and specifically on this survey. This orientation session covered the standards in-depth, enabling the enumerators to know exactly what they were looking for.

From 8 May to 12 May, these enumerators visited 130 toilets across these dzongkhags, and measured each against the Standards. The list of these toilets as well as their accessible scores are available in Annex I.



# Literature Review

## Public Toilets in Bhutan

Bhutan is one of only 10 countries yet to ratify the United Nation Convention of the Rights of Persons with Disabilities (UNCRPD), which recognises people with disabilities (PWDs) as equal and full members of society, not subjects of burden or charity (Lamsang, 2020). Estimates of PWD population in Bhutan vary between 15 000 (PHC 2017) and 21 000 (Dorji & Solomon, 2009).

Everyone, including PWDs, spends a significant portion of their day outside their home, and therefore, making toilets in public spaces accessible is not just a matter of convenience but of equality and basic human rights (Moreira et al., 2022). Despite that, accessible public toilets that are safe and clean remain rare across the world, especially in low to middle-income countries (Coswosk et al., 2019; Yan et al., 2021). Lack of accessible toilets in public spaces keeps PWDs from being able to use public spaces, which hinders their independence and further isolates the already-marginalised community (Kapsalis et al., 2022). In general, public toilets in Bhutan are lacking, even for those without disabilities. These toilets tend to have poor sanitation, poor location consideration, inadequate infrastructure, and poor

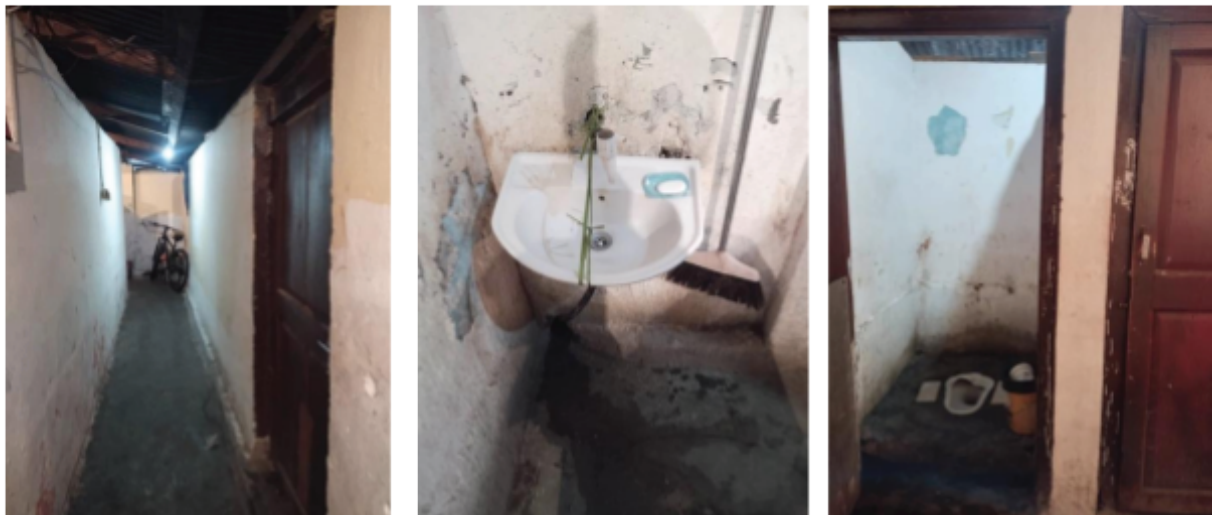


Figure 1 The hallway that leads to the public toilet, the hand washing sink and the lavatory (Source: Personal collection)

## Definition of Disability

The World Health Organization (WHO) describes disability in three dimensions:

- i. Impairment of body and mental functioning;
- ii. Limitation in activity in executing certain tasks or actions and;
- iii. Restriction of participation in socio-economic aspects.

In the Royal Government of Bhutan's National Policy for Persons with Disabilities (2019), persons with disabilities are defined as those who have **long-term physical, mental, intellectual, or sensory impairments, which in interaction with various barriers may hinder their full and effective participation in society**. This is the definition for PWDs used in this paper.

Both WHO and RGoB's definition clarify that disability isn't just the result of an impairment, but rather how that impairment is exacerbated by barriers and conditions of society. The International Classification of Functioning (ICF) also argues that disability is the outcome of health conditions and bodily impairments interact with the contextual environment PWDs are brought up in. Society can and must be organised well (including architectural accessibility) to ensure that it is run by uplifting or at least not burdening impairments experienced by PWDs (Jette, 2006). Article 9 of UNCRPD safeguards the rights of PWDs to live in an accessible environment.

## Definition of Disability

Public toilets are often seen as sanitation facilities to reduce public health concerns of open defecation and open urination. This limited view misses the depth and importance of accessible public toilets (Ramster et al., 2018). Accessible public toilets, like any accessible urban infrastructure, provide the freedom and ease for a person to decide participation in activities in the urban areas (Slater & Jones, 2018). Public toilets are a critical infrastructure to ensure proper public

health through sanitation but also by reinforcing human rights across all spheres of life (Moreira et al., 2022).

The lack of accessible public toilets limits how far people can travel, and the amount of time spent away from home (Greed, 2011). This limits their social and economic opportunities as they can be excluded from work, recreation, consumption, and circulation, forming the public places of cities which limits them (Evcil, 2009).

Therefore, safe, clean, and accessible public toilets are key to making public spaces usable and livable for all (Yan et al., 2021)

## Accessibility Standards for Public Toilets

Many countries have laws and regulations to make public spaces accessible to everyone irrespective of age, gender, and ability. However, ensuring accessibility to public spaces, which includes public toilets for PWD requires additional commitment, planning and implementation. Legislative and regulatory measures that ensure infrastructure meets minimum accessibility requirements can be one way forward. This can be achieved by:

- i. Setting accessibility standards for toilets including designs, dimensions and facilities suiting different types and levels of disability;
- ii. Mandating public and private infrastructures accessibility standards to ensure that almost all the facilities are accessible;
- iii. Enforcing legislation and regulations by imposing penalties and giving incentives to ensure compliance towards accessibility standards;
- iv. Education and awareness of such standards for the public with awareness campaigns. Passing laws and regulations with specific requirements for public and private buildings have many precedents.

For example, in America, the American Disability Act (ADA) along with ADA Accessibility Guidelines (ADAAG) for buildings and facilities requires public toilets to be accessible by providing detailed minimum requirements. Similarly, other countries like those in the European Union and Japan also have comprehensive building standards or codes that ensure that there are enough public toilets with accessibility features for public spaces.

However, passage of legislation alone is not enough. These documents must be clear in their language of who is responsible for what. The National Policy for Persons with Disabilities of Bhutan 2019 and the Building Code of Bhutan (Department of Human Settlement, 2018; Department of Urban Development & Housing, 2002) are unclear on these questions, which can lead to a lack of compliance and success.

As well, countries, including Bhutan, must ensure that these documents are effective and can be enforced easily, because countries often struggle with enforcement and effectiveness due to conflicting laws (Evcil, 2009). For example, the ADA's requirement of a wheelchair ramp even in the private businesses are deemed to be unnecessary due to the US constitution's fifth amendment.



## Legal Framework in Bhutan

The 'National Policy of Persons with Disability 2019' outlines the commitment of the Royal Government of Bhutan towards promoting and reinforcing PWD rights through equal education, healthcare, and other socio-economic domains. While the document was critical in establishing the government's intent to pursue PWD accessibility, there are a lot of improvements that must be made to the policy. For example, in the following provisions, it is unclear what reasonable 'accommodations and modifications' are. These provisions lack details and are not specific on how to make public infrastructures more accessible, or on who is responsible for making it happen.

*"The RGoB shall ensure all existing infrastructure related to the provision and administration of justice including courts, police stations, detention centres and jails and shelters for victims of violence are made accessible for persons with disabilities through reasonable accommodation" pg 30 (National Policy for Persons with Disabilities, 2019)*

*"The RGoB shall ensure all new infrastructure related to the provision and administration of justice including courts, police stations, detention centres and jails are made accessible for persons with disabilities through the adoption of universal design" pg 31 (National Policy for Persons with Disabilities, 2019)*

Leaving these provisions vague and open to interpretation have limited their impact on the ground, with public toilets even in RGoB offices and other government-owned public buildings failing accessibility standards. Other than the 2019 Policy for PWDs, another related policy is the 'National Sanitation and Hygiene Policy 2017.' However, the policy is limited to ending open defecation and urination, and therefore, doesn't have many provisions that mandates PWD accessibility.

## Toilet Accessibility Standards Around the World

Bad and inadequate design can negatively affect accessibility. This can be due to the lack of knowledge of disability in professional design education or due to the lack of legal standards (or the presence of legal loopholes), and most importantly, due to not involving PWDs in the development process (Evcil, 2009). In this section, the paper explores public toilet accessibility standards from Europe (British Standard, BS8300-2:2018), America (United states, American Disability Act) and Asia (ASEAN public toilet standard).

# Universal Design

Universal Design or Design For All is an inclusive design philosophy that ensures all products and environments can be accessed safely and easily by all users irrespective of their age, gender, and ability (UN, 2014). While Bhutan’s National Policy for Persons with Disabilities 2019 lacks details on standards, it also stipulates the need for universal design in all infrastructure to ensure accessibility.

To achieve universal design in infrastructure and to ensure that everyone can use public toilets with independence, safety, and dignity, all public toilets must consider the full process of a person using the toilet. From ensuring that the path to the toilet is accessible to making sure that the process of using the toilet does not compromise a PWD’s dignity and safety any differently than they would a person without disability, universal design must consider all things.

It includes the size of the toilet’s entrance, the size of the toilet stall, and access to proper amenities (ASEAN, 2016). Other features that feature across various standards are wider stalls, grab bars, non-slip flooring, height-adjustable sinks and toilets, and proper signage. Examples of a universal design by British Standard BS8300 (2001) are given below in Figure 2 and 3. Depending on the country’s accessibility acts or building codes, accessibility requirements for public toilets can be different.

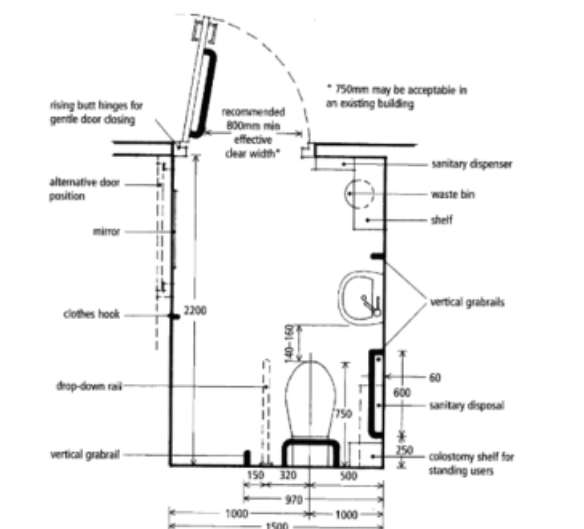


Figure 2: BS8300 (2001) Plan of Unisex wheelchair accessible washroom (Bichard et al., 2006)



Figure 3: The unisex accessible cubicle (note: alarm incorrectly installed) (Bichard et al., 2006)

The BS8300 toilet's inclusive design takes into consideration a wide range of disabilities compared to previous models, which were designed predominately for wheelchair requirements. BS8300 was the result of intensive research and consultations over 4 years. To ensure that the new standards were considerate of costs and practicality, which could hamper public compliance, the design development process involved measuring subjective comfort at different heights of fixture and fitting. The standards have evolved and improved over the years, and now they include considerations for several hidden disabilities.

Universal Design can be applied to all types of public toilets, including multi-user toilets (with stalls) and temporary portable single-user toilets. In both cases, an accessible route and entrance and all the necessary fixtures and facilities apply along with all the provision for water closets, including those for grab bars and clearance.

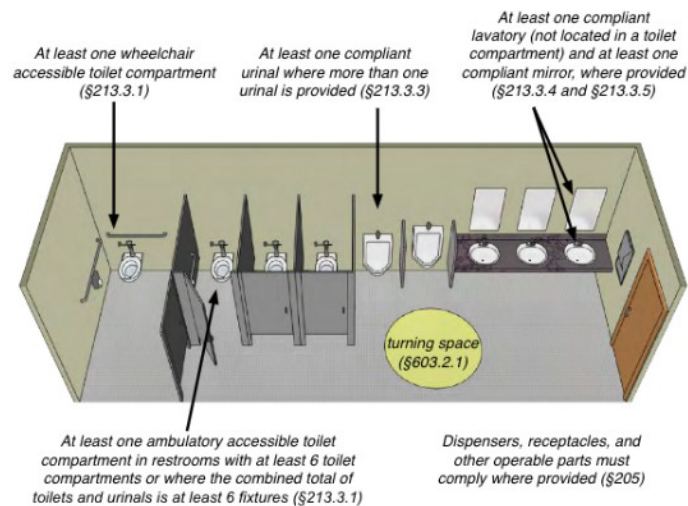


Figure 4: Components of a multi - user toilet room (US access board, 2010)

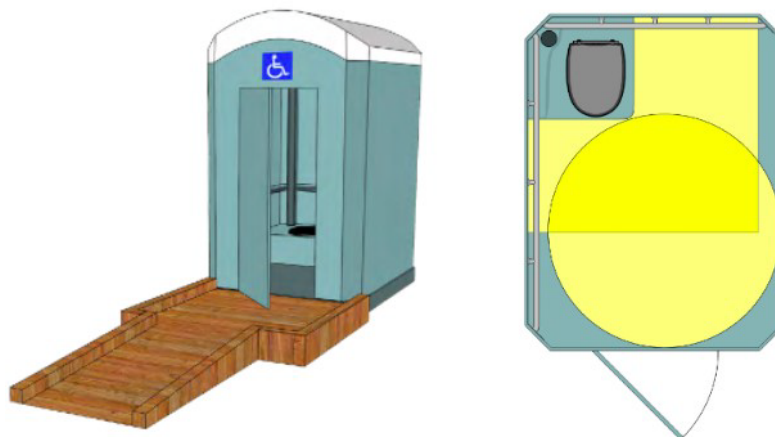


Figure 5: Portable Toilet unit (US access board, 2010)

## Accessibility Features in Public Toilets

Different countries have different standards, but a review of these standards show many commonalities in terms of overall characteristics, facilities, and layout. The standards are all focused on ensuring that PWD have equal access to necessary amenities and can use public restrooms with dignity and ease. In addition to the layout, there are several features that are common across these standards.

1. There should be a wheelchair ramp to the toilet entrance.
2. The toilet and doorway areas should be wide enough for wheelchair users to pass through and move around.
3. There should be enough space for a wheelchair user to transfer to and from the toilet pot safely.
4. The toilet pot should ideally be a seated toilet, or if it is a squatted toilet, there must be a seat accommodation.
5. The toilet must have a secure and stable seat with grab bars around it.
6. The grab bars should be sturdy enough to bear the weight of a person.
7. The wash basins and hygiene stations should be within reach for all users.
8. The wash basin and hygiene facilities (soap and drying) can be free standing or attached to the wall.
9. Handwashing with soap is one of the key hygiene targets of SDG and is the only hygiene target monitored by WHO/UNICEF (Yan et al., 2021).
10. Adequate lighting including emergency lighting for people with visual impairments will make a great addition. Surfaces of the building such as walls have different impacts on people with different abilities. While shiny surfaces can confuse people due to visual impairment or sensory or neurological processing. Thus, such design details should also be considered to make toilets inclusive and accessible (British Standards Institution, 2018).

In terms of the entrance, the door location and the side clearance on the pull side should both be easy-to-use handles. Figure 6 shows easy-to-use door handles that don't need you to twist and turn and a doorknob that needs more exertion to open the door.

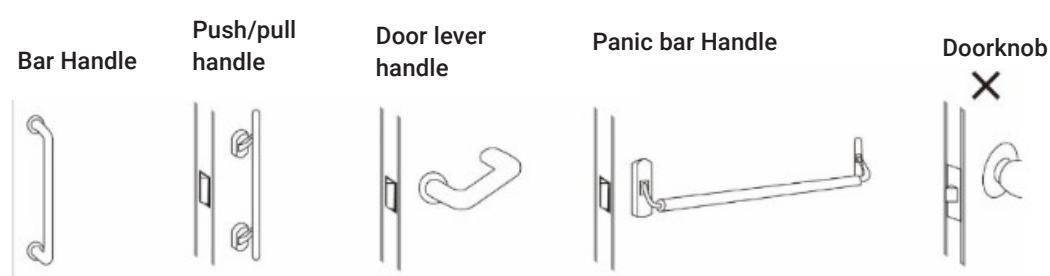


Figure 6: Example of easy - use door handle (Japan Association for the 2025 World Exposition , 2022.)

Furthermore, the door locking mechanism should be easy with enough door length for appropriate privacy. An internationally understood colour coding indicator for the occupancy of the compartment is also recommended. Another supplementary fixture that may be useful to users is to have a cubicle hook for hanging personal belongings and a railing for sitting and standing (Yan et al., 2021)

Toilet flushes are uncommon in public toilets in Bhutan due to poor infrastructure and inadequate water supply. Therefore, installing a flush option that uses water sustainably is important such as automatic flush set-up that flushes after toilet use. Furthermore, depending on the cost-benefit analysis, installing automatic flushes that operate after each user might not only be more sanitary but also better for water usage.

## Safety and Privacy Features

Some common features from various standards deal exclusively with safety and privacy of the user to ensure that the PWD using the toilet is safe and comfortable.

Safety features:

1. Slip-resistant floors to reduce the risk of slips and accidents. To achieve this, non-slip homogeneous tiles are commonly used, as they are durable and easy to clean (A Guide to Better Public Toilet Design and Maintenance, 2022). It is also essential to tile the walls to facilitate thorough cleaning.
2. Other safety features such as grab bars and adequate lighting allow users to navigate the environment safely (ASEAN, 2016).
3. An emergency alarm with an alarm pull cord is a critical feature that is recommended and required by law in many countries. In an emergency, pulling the cord can alert nearby individuals and call for necessary assistance. Thus, the alarm pull cord should be strategically placed to be easy to reach for all users.
4. A clear protocol on proper procedure to emergency response and alarm system inspection should be maintained.

Privacy features:

Toilets should have privacy barriers and locking doors that can easily be operated with various levels of mobilities and abilities. Mirrors, urinals and cubicles should be placed away from the line of sight of the entrance/exit (ASEAN, 2016).

## Signage

Clear, visible, and easy to interpret signage should be placed both outside the toilet in a conspicuous location for visibility (wayfinding signage) as well as inside the toilet for safety and hygiene (safety signage and hygiene signage) (ASEAN, 2016). Wayfinding signage helps the public to locate the toilet, while safety signage ensures that potential hazards such as slipping on wet floors can be avoided and hygiene signage promotes good hygiene.



Figure 8: Wayfinding signage used in one of the public toilets in Bhutan (Source: Personal collection)

Signage that is recognisable with female, male, and disabled signage in a dark colour with contrasting light colour is commonly used (US access board, 2010). The international symbol of accessibility, which is a blue background with a wheelchair icon, is often used to show PWD accessibility.

Signage for accessible public toilets should also include directions for using the toilet in a safe and hygienic manner. Information should be provided in both text and illustration is recommended. Furthermore, for sighted and blind/partially sighted users, the use of well-contrasted tactile text and symbols is important.

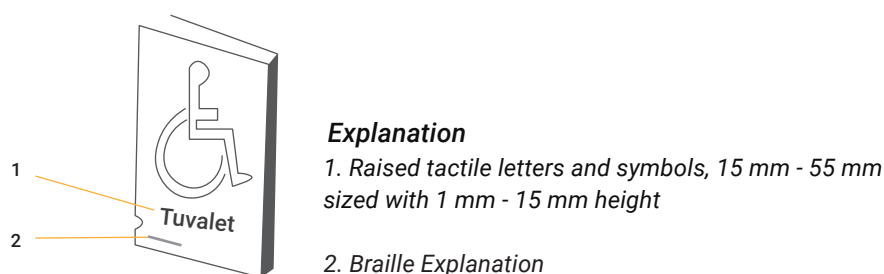


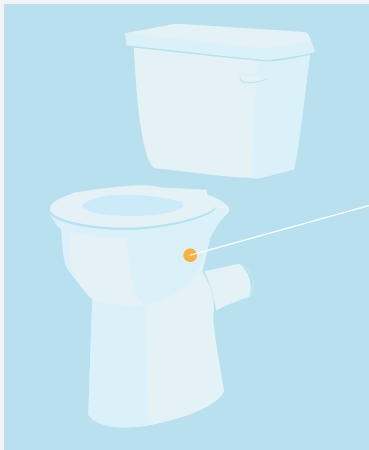
Figure 9: Raised tactile letters and braille (World Disability Federation, n.d)

# Comparing Accessibility Standards Across Countries

The design specifications for accessible toilets can differ based on which accessibility act or standards it is based on. Table 1 summarises key differences of public toilet accessibility dimensions across Europe (British standard), Asia (ASEAN toilet standard) and America (US's American disability act).

Fixture	British	ASEAN	America
Entrance (Door Opening)	700 mm minimum	800 mm minimum	42 inches (1065 mm) minimum
Accessible cubicle	2200 mm x 1700 mm	1500 mm x 2200 mm	1422 mm x 1524 mm
Toilet Bowl (Height above finished floor level)	380 mm - 500 mm	430 mm - 480 mm	431.8 mm - 482.8 mm
Flush	Placed at 800 mm - 1000 mm above finished floor level	Not Specified	Flush control on the open side
Toilet paper holder (Height above finished floor level)	700 mm - 1000 mm	430 mm - 700 mm	380 mm - 1200 mm
Grab bars	Horizontal bar : 600 mm - 680 mm above the floor Vertical bar : 600 mm long	Horizontal bar : 700 mm - 800 mm above the finished floor	Horizontal bar : 1065 mm long Vertical bar : optional
Wash basin (Height above finished floor to wash basin sim)	Height 780 mm - 800 mm	Height 820 mm (Maximum)	Height 865 mm
Mirror	1000 mm - 1600 mm tall and have its bottom edge set at 600 mm above the floor	Should be provided	reflecting surface 40 inches (1015 mm) maximum above the finished floor or ground
Paper towel dispenser	Should be provided	Should be provided	380 mm - 1220 mm above the finished floor
Hand dryer	Optional	Optional	Optional
Trash bin	Not Specified	Hand free waste bin with liners within immediate reach	Not Specified
Automatic door opener	Optional	Optional	Optional
Peminine hygiene disposal unit	Optional	Optional	Optional

Table 1: Comparison of accessible public toilet facilities fixtures across Britain, ASEAN and American accessible public toilet standard



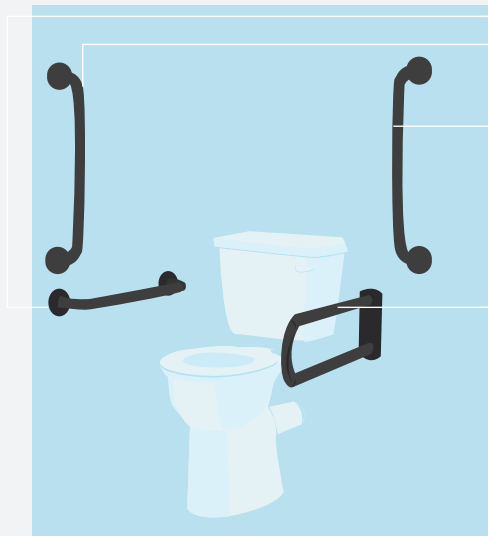
### Sitting Toilet Pot

Thimphu : 59.40%  
Paro : **75%**  
Punakha : 10%



### Wash Basin

Thimphu : 90.1%  
Paro : **100%**  
Punakha : 85%



### Grab Bars

Thimphu : 5%  
Paro : **16.7%**  
Punakha : 0%

### Sinage



### Adequate Lighting

Thimphu : 68.3%  
Paro : **83.3%**  
Punakha : 70%





# Results of the Survey

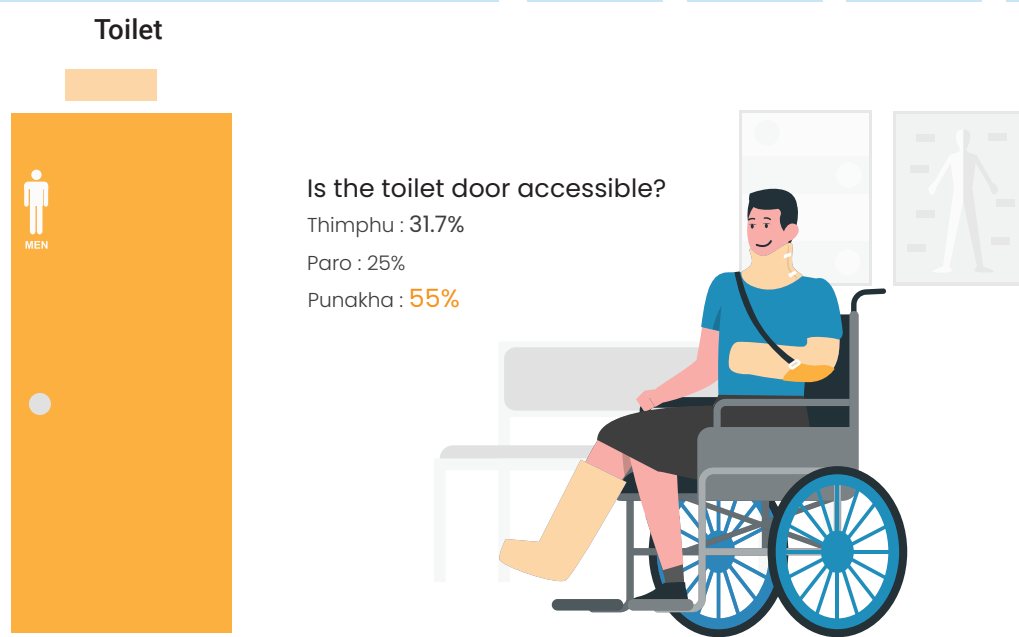
## Toilet Stalls

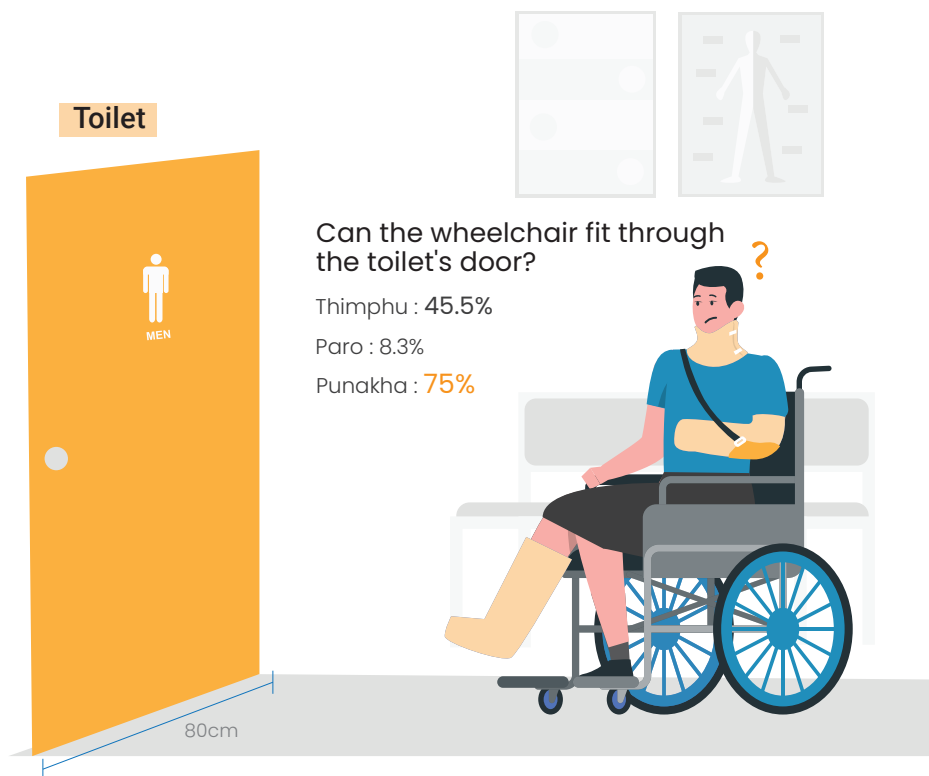
To measure the accessible of toilet entrance and stalls, following questions were being asked:

1. Is the toilet door accessible? (i.e., is the path to the toilet door open and accessible by wheelchair) - this question also considers an important feature of Bhutanese architecture. Bhutanese households typically have a block of wood at the bottom of the door, called Goenthay, that can be difficult for wheelchair users to navigate.
2. Is the entrance of the toilet at least 80 cm in width? (i.e. can a wheelchair fit through the toilet's door?)
3. Is there enough space near the toilet seat for a wheelchair user to transfer to and from the toilet seat easily?

The following table shows the percentages of toilets in each dzongkhag that passed the standards.

Question	Thimphu	Paro	Punakha	Total
Is the toilet door accessible?	31.70%	25%	55%	34.60%
Is the entrance of the toilet at least 80 cm in width? (i.e. can a wheelchair fit through the toilet's door)	45.50%	8.30%	75%	46.60%
Is there enough space near the toilet seat for a wheelchair user to transfer to and from the toilet seat?	38.60%	41.70%	65%	42.90%
All There	18.80%	8.30%	40%	21.10%






## Style of Toilet

This question asks if the toilet pot is seated or squatted, and if squatted, is there accommodation for seating?


Question	Thimphu	Paro	Punakha	Total
Is the toilet pot a sitting toilet?	59.40%	75%	10%	53.40%

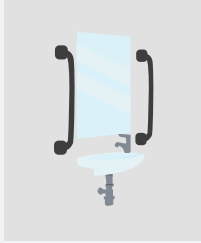
	Seated	Squatted
Thimphu	59.4%	40.6%
Paro	75.0%	25.0%
Punakha	10.0%	90.0%



Seated

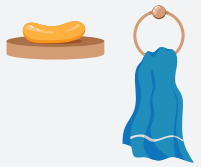


Squatted



### Wash Basin

	Not Available	Available + not Accessible	Available + Accessible
Thimphu	28.7%	18.8%	71.3%
Paro	8.30%	8.30%	91.7%
Punakha	25.0%	10.0%	75%



### Soap

	Not Available	Available + not Accessible	Available + Accessible
Thimphu	81.2%	10.9%	18.8%
Paro	91.7%	0%	8.30%
Punakha	90%	10.0%	10.0%

### Lighting



#### Adequate Lighting?

Thimphu : 68.3%

Paro : **83.3%**

Punakha : 70%

## Grab Bars

Grab bars are essential for PWDs to transfer to toilet pots safely. These bars must be stable, secure, and sanitary. To measure accessibility here, the following questions were asked:

1. Does the toilet stall have grab bars to help people in wheelchairs transfer to the toilet seat?
2. If you answered YES to the previous question, are the grab bars sturdy?
3. If you answered YES to the first question, are the grab bars clean?

The following metric is based on how many toilets had the “yes” responses to all of the three questions.

Question	Thimphu	Paro	Punakha	Total
Does the toilet stall have grab bars to help people in wheelchairs transfer to the toilet seat?	5%	16.70%	0%	5.30%

## Wash Basins

Wash basins are an important part of any toilet, and since the basic principle of equality is that no PWD should experience life any differently than someone without a disability, because of their condition, access to Wash Basins should be guaranteed for PWDs. To that effect, this section asked several questions about access to Wash Basin and other hygiene features:

1. Is there a wash basin/hand-washing area in or near the toilet?
2. Is the wash basin/hand-washing area at a height that is accessible to someone in a wheelchair?
3. Is soap available in the wash basin/hand-washing area?
4. Is soap accessible in the wash basin/hand-washing area?

In analysing the data for this section, the results were filtered to find toilets where

1. Wash Basins were both **available and accessible**
2. Wash Basins were **available but not accessible**
3. Soap was both **available and accessible**
4. Soap was **available but not accessible**

Question	Thimphu	Paro	Punakha	Total
Is there a wash basin/hand-washing area in or near the toilet?	90.10%	100%	85%	90.20%

Is the wash basin/hand-washing area at a height that is accessible to someone in a wheelchair?	71.30%	91.70%	75%	74.40%
<b>Basin available and accessible</b>	71.30%	91.70%	75%	73.70%
<b>Basin available but not accessible</b>	18.80%	8.30%	10%	16.50%
Is soap available in the wash basin/hand-washing area?	18.80%	8.30%	10%	16.50%
Is soap accessible in the wash basin/hand-washing area?	71.30%	91.70%	75%	73.70%
<b>Soap available and accessible</b>	33.30%	33.00%	50%	36.10%
<b>Soap available but not accessible</b>	10.90%	0%	10%	9.80%

## Lighting

Lighting is an important part of making users feel safe in the toilet. The questions up until this section required very little subjective input from the enumerator. However, “adequate” lighting is extremely difficult to define without using complicated technology such as a photometre. Therefore, in this section, enumerators were asked to use their own judgement. However, to try and bring each enumerator’s definition of “adequate lighting” to as close to each other as possible, the orientation included a short session to understand what everyone considers adequate.

Question	Thimphu	Paro	Punakha	Total
Do you think the lighting in the toilet is adequate?	68.30%	83.30%	70%	69.90%

## Floors

Slip-resistant flooring is also relatively difficult to measure without conducting several experiments. Therefore, during the orientation of data enumerators, Nyingnor Data described situations that make flooring slip-resistant. To measure this accessibility feature, the survey asked what material the floor was made from and if the enumerator thought the flooring was slip-resistant.

Question	Thimphu	Paro	Punakha	Total
Do you think the toilet floor is slip-resistant?	49.50%	75%	10%	45.90%

## Signage

Signage for accessibility types: wayfinding, to help users find toilet facilities from anywhere in the building, hygiene, to promote good hygiene to users, and safety, to remind users of things like wet floors. The first two are relatively straightforward to measure, as enumerators can simply walk around to see if these signage exists. But, the third is only deployed at special times, so, the data from the safety signage should not be interpreted to mean that they simply don't exist.

Question	Thimphu	Paro	Punakha	Total
Is there <b>wayfinding signage</b> displayed outside the toilet?	60.40%	16.70%	25%	51.10%
Is there <b>safety signage</b> in the toilet?	6.90%	8.30%	10%	7.50%
Is there <b>hygiene signage</b> in the toilet?	18.80%	8.30%	5%	15.80%

## Doors

For a toilet to be considered PWD accessible, the door handles must be easy to use and installed at a height that is accessible by anyone in a wheelchair. The locks should be easy to use and the door should be of an appropriate length to ensure privacy.

Question	Thimphu	Paro	Punakha	Total
Are the door handles easy to use?	69.30%	75%	85%	72.20%
Are the door handles installed at a location that is appropriate and accessible to a PWD?	61.40%	100%	60%	64.70%
Is the door locking mechanism easy to use?	77.20%	83.30%	95%	80.50%
Is there enough door length provided for appropriate privacy?	64.50%	83.30%	50%	63.20%

## Universal Design

Finally, the enumerators were asked, based on their knowledge of universal design of toilets (from their orientation session) and from visiting these toilets in person, if they thought the toilet followed principles of universal design closely.

Question	Thimphu	Paro	Punakha	Total
Is the toilet designed in a way that allows all users, including those with disabilities, to use it with independence, safety, and dignity?	19.80%	9.10%	36.80%	21.10%
Are the toilet facilities designed in an inclusive and considerate manner, taking into account the needs of all users?	20.80%	0.00%	31.60%	20.30%

# Findings from the Survey

- ✔ Only 5.3% of toilets in Thimphu, Paro, and Punakha have grab bars to help people in wheelchairs transfer to the toilet seat. This is a major barrier to accessibility, as grab bars can help people with disabilities to maintain their balance and prevent falls.
- ✔ Only 36.1% of toilets in Thimphu, Paro, and Punakha have soap that is accessible to someone in a wheelchair. This means that many people with disabilities may not be able to wash their hands with soap after using the toilet.
- ✔ Only 45.9% of toilets in Thimphu, Paro, and Punakha have lighting that is adequate. This can make it difficult for people with disabilities to see and use the toilet.
- ✔ Only 45.9% of toilets in Thimphu, Paro, and Punakha have floors that are slip-resistant. This can be a safety hazard for people with disabilities, as they may be more likely to slip and fall.
- ✔ Only 15.8% of toilets in Thimphu, Paro, and Punakha have hygiene signage in the toilet. This can lead to people with disabilities not washing their hands properly after using the toilet.
- ✔ Based on enumerator responses, only 20.3% of toilet facilities in Thimphu, Paro, and Punakha are designed in an inclusive and considerate manner, taking into account the needs of all users. This means that many people with disabilities may not feel comfortable using the toilet.

# Recommendations

## Policy Recommendations

- ✔ Review the Bhutan PWD Toilets Standards as they have been written here and implement them at a national level. The government should require all new toilets to meet these standards, and for all existing publicly-accessible toilets to be upgraded to meet these standards by a certain year.

- The government should provide financial incentives and assistance to the
- ✔ businesses and organisations who want to make their toilets accessible.

## Research Recommendations

- ✔ As part of the overall project this study falls under, Nyingnor and Bhutan Toilet Organisation are also collecting feedback from PWDs across the country. The responses there will be used to determine the perception of accessibility of toilets among Bhutanese PWDs. Since these two studies are happening at the same time, there is limited room for the two studies to impact each other. However, future studies and research in this field can fine-tune the Bhutan PWD Toilets Standards with input from PWDs.
- ✔ This survey only measured the accessibility of toilets in Thimphu, Paro, and Punakha, due to time and budget constraints. With more time and money, the survey must be done in every dzongkhag in Bhutan. The findings from the survey can be used to recommend locality-specific solutions to make toilets accessible



## Public Awareness and Policy- Marker Advocacy Recommendations

- ✔ Conduct an advocacy campaign with local leaders, such as Thrompoens and Gups, and give them results specific to their constituency, so that they know exactly what issues keep the toilets in their areas from being accessible. Moreover, because this study is broad and has looked at (almost) all publicly-accessible toilets in three dzongkhags - as opposed to looking at a representative sample - the local leaders can be given names of all the toilets in the survey and which parts of the toilet must be upgraded for be considered accessible.
  
- ✔ Once a nationwide study similar to this is conducted, the results can be given to local leaders from all Gewogs and Thromdes in the country.  
Create a public campaign
  - i. Use the stories collected from the Perceptions of Accessibility study to provide an emotional component to Toilets Accessibility.
  - ii. Create infographic videos on how an accessible toilet looks like.
  - iii. Create videos with PWDs talking about their struggles with inaccessible toilets to garner public support.
  - iv. Partner with the construction industry to educate them on PWD toilets accessibility.

# Annex I – List of Publicly Accessible Toilets

## Thimphu

1. Clock Tower Area
2. Centenary Park-Public
3. Kaja Throm
4. Main town, below RICBL
5. Behind Norling, vegetable market
6. Memorial Chorten
7. JDWNRH
8. Changlimithang Stadium
9. Royal Takin Reserve
10. Tashichho Dzong
11. Simtokha Dzong
12. BOB main office
13. BNB Head Office
14. Druk PNB Main Office
15. Buddha Point
16. Phajoding
17. Pumola Monastery
18. RICBL Head Office
19. Bhutan Post
20. Vegetable Market, Sabji Bazar
21. Hejo Vegetable Market,
22. Changzamtog vegetable market
23. Olakha Vegetable market
24. BIL Office
25. DGPC
26. WHO country office
27. BDBL head office
28. Near Jungzhina Taxi Parking, Chubachu
29. Swimming Pool Area
30. YDF
31. DYS Toilet
32. Etho Metho Plaza
33. Kisa Hotel
34. Druk Hotel
35. Taj Tashi
36. Le Meridien
37. Aman Kora
38. Six Sense Resort
39. Pedling Hotel
40. Lemon Tree
41. Willows
42. Yarkay Plaza
43. Thimphu Plaza
44. Changlam Plaza
45. Druk Air Office
46. RTC
47. RITH
48. Zhiwaling Ascent
49. Zorig Chosum
50. RTA
51. Zilukha Nunnery
52. Hongtsho
53. Changlimithang Archery Ground
54. Tarayana Building
55. Ministry of Labor
56. Ministry of Education
57. Ministry of Health, WHO
58. Government offices near Tashichho Dzong
59. Parliament Hall
60. Ministerial Colony
61. Pelkhil High School
62. Desi High School

- |                           |                                       |
|---------------------------|---------------------------------------|
| 63. YHSS                  | 82. Serbithang football ground        |
| 64. MHSS                  | 83. Changjiji football ground         |
| 65. Changangkha School    | 84. NITM                              |
| 66. Dr. Tobgyal           | 85. Thimphu city office               |
| 67. Jigme Namgyal school  | 86. 8 eleven                          |
| 68. Jigme Losel school    | 87. Multi level parking               |
| 69. Babesa MSS            | 88. Changangkha Temple                |
| 70. Lungtenzampa MSS      | 89. IT park, Babesa                   |
| 71. Nima HSS              | 90. Bhutan Agro, Serbithang           |
| 72. Kelki HSS             | 91. Serbithang Botanical park         |
| 73. Rinchen HSS           | 92. Ludrong Park, Trashie Chhoe dzong |
| 74. Druk school           | 93. Yangphel Real estate              |
| 75. ELC HS                | 94. Muscle Factory gym                |
| 76. BPC colony            | 95. City cinema hall                  |
| 77. Changjiji colony      | 96. Trowa Theater                     |
| 78. NPPF colony           | 97. Lugar Theater                     |
| 79. RICBL colony          | 98. Space 34                          |
| 80. Sersang Futsal ground | 99. Viva city                         |
| 81. Terma Linca futsal    |                                       |

## Paro

- |  |  |
|--|--|
| 1. Kuenga Phodrang Cinema                      | 7. Near Basketball court public toilet     |
| 2. Drugyal CS                                  | 8. T Bank toilet in town                   |
| 3. Staff toilet of Drugyal CS                  | 9. TT Extra                                |
| 4. Drugyal area, Resident toilet for customers | 10. Hospital, near canteen, patient toilet |
| 5. Kaja throm                                  | 11. Hospital ward toilet                   |
| 6. Mountain cafe                               | 12. Hotel Lingden, Nemjo                   |

## Punakha

- |                                 |  |
|---------------------------------|--|
| 1. Khuruthang taxi parking      | 10. Kaja throm                           |
| 2. Punakha Dzong                | 11. Khuruthang lhakhang                  |
| 3. Punakha Central School       | 12. Dzomi Gewog Center                   |
| 4. Punakha hospital             | 13. BPC colony (Lobesa)                  |
| 5. Gakiling Restaurant          | 14. Mochhu Punakha Restaurant            |
| 6. Zomlingthang picnic spot     | 15. Central monastic primary school      |
| 7. Chimi Lhakhang               | 16. Lekshed Jungney Choeda(shaydra)      |
| 8. Lobesa town                  | 17. Jimba Gyeltshen General shop and bar |
| 9. College of Natural resources | 18. Mendhagang Primary School            |

