

RESTROOM FOR ALL

MANSI KEER

Student of Architecture, Indore Public School of Architecture, Indore452001, Madhya Pradesh

Corresponding author: Mansi Keer (keermansi070@gmail.com)

ABSTRACT

Providing public toilets for all is an important issue that needs to be addressed in order to promote public health and sanitation. Access to clean and safe public toilets is essential for everyone, regardless of their socioeconomic status or physical ability.

Unfortunately, many communities and public spaces lack adequate public toilet facilities, which can lead to unsanitary conditions and health risks for individuals who do not have access to private restrooms. This can also create challenges for individuals who are homeless or who have disabilities.

To address this issue, there are a number of actions that can be taken. Local governments can prioritize the construction and maintenance of public toilets in high-traffic areas, such as parks, transportation hubs, and downtown areas. Additionally, businesses and public facilities, such as libraries and community centers, can be encouraged to make their restrooms available to the public.

Finally, education and awareness campaigns can be implemented to encourage individuals to use public toilets responsibly and to take care of these facilities to ensure their cleanliness and safety. By working together to promote access to public toilets for all, we can help to create healthier and more inclusive communities.

Key words : socioeconomic , prioritize , unsanitary conditions , downtown areas

INTRODUCTION

The importance of public toilets cannot be overstated. They are a basic necessity for any society, providing a clean and safe place for people to relieve themselves and maintain their personal hygiene. Public toilets are particularly important for people who are homeless, traveling, or have medical conditions that require frequent bathroom breaks. They also promote public health by providing a means for people to wash their hands and prevent the spread of disease.

In addition to their practical importance, public toilets also have a social and cultural significance. They are a reflection of the values and priorities of a society, and can help to promote inclusivity and equality by ensuring that everyone has access to basic amenities. In many places, public toilets have also become an important site for public art, political expression, and social interaction.

AIM

To study need for Public Toilet for all.

OBJECTIVE

Current scenario of public toilet Age group feedback in public toilet experience Standards New model proposal

SCOPE

Raise the voice towards access to all and comfort for all

LIMITATION

Sense of usability

METHODOLOGY

Case Study Of Public Toilet Feed Back Of All Age Groups Research Regarding Existing Standards Public Toilet Model

SWOT

S - HOLDS A MISSION W - LACK OF AVAILABILITY O - CAN PLAN NEW MODEL T - LACK OF RESPONSIBILITY

REASERCH QUESTION



What are the common challenges architect face when designing public toilet for all ? How do make it functional and sustainable ? Why do people need it ?

CASE STUDY ON INDIAN PUBLIC TOILET Introduction:

Public toilets in India have been a topic of concern for a long time. Public toilets are necessary for maintaining cleanliness, hygiene and preventing open defecation. Despite various initiatives taken by the government, there is still a lack of proper public toilets in many parts of the country. In this case study, we will explore the current state of Indian public toilets and the steps taken to improve the situation.

Background:

According to a report by the Ministry of Housing and Urban Affairs, only 34% of households in urban areas have access to toilets connected to the sewage system, while the rest rely on on-site sanitation facilities such as septic tanks or pit latrines. Furthermore, only 8% of urban public toilets are women-friendly, which means that they lack adequate privacy, safety, and cleanliness.

Initiatives taken by the government:

To address the issue of inadequate public toilets, the government has launched several initiatives. One such initiative is the Swachh Bharat Abhiyan (Clean India Campaign), which was launched in 2014 with the aim of making India open defecation-free by 2019. The campaign focused on building public toilets and promoting the use of toilets. Under this initiative, the government built over 110 million toilets across the country.

Another initiative is the AMRUT scheme (Atal Mission for Rejuvenation and Urban Transformation), which was launched in 2015 to provide basic infrastructure in urban areas, including public toilets. The scheme aims to improve the living standards of people living in urban areas and make them more livable.

Private sector initiatives:

Apart from government initiatives, private companies have also taken steps to improve the situation. For example, the Sulabh International Social Service Organisation, a non-profit organisation, has been working to improve sanitation in India for over four decades. The organisation has built over 1.5 million household toilets and 8,500 public toilets across the country.

Challenges:

Despite the initiatives taken by the government and private organisations, there are still several challenges that need to be addressed. One of the major challenges is the lack of proper maintenance of public toilets. Due to inadequate maintenance, many public toilets become unusable after a few months of use. This problem can be addressed by involving the community in the maintenance of public toilets.

Another challenge is the lack of awareness among people about the importance of using toilets. Many people in rural areas still practice open defecation due to lack of awareness about the harmful effects of open defecation on their health and the environment. The government and private organisations need to focus on creating awareness about the importance of using toilets.

Conclusion:

In conclusion, public toilets in India continue to be a major concern. The government and private organisations have taken steps to improve the situation, but there is still a long way to go. Proper maintenance of public toilets and creating awareness about the importance of using toilets are some of the key areas that need to be addressed to make India open defecation-free.

A model of a public toilet for all should aim to provide a safe, clean, and accessible space for all users regardless of their age, gender, disability status, or cultural background. Here are some key considerations for a public toilet model that is inclusive and accessible for everyone:

1. Location: Choose a location that is easily accessible to all users, including those with

disabilities, seniors, parents with strollers, and individuals with mobility aids.

- 2. Layout: Design a facility with a clear and intuitive layout that is easy to navigate for all users. This should include spacious stalls, sinks, and hand dryers that are easy to reach and use for individuals of all heights and abilities.
- 3. Gender-Neutral: Consider providing gender-neutral stalls to accommodate users of all gender identities.
- 4. Accessibility: Ensure that the facility meets the accessibility standards for people with disabilities. This includes wheelchairaccessible stalls, grab bars, and sinks that are positioned at the right height.
- 5. Hygiene: Provide facilities for users to maintain their hygiene, such as diaper changing stations, menstrual product dispensers, and hand sanitizing stations.
- 6. Security: Provide a secure and safe environment for all users. This may include installing CCTV cameras and hiring security personnel if needed.
- 7. Sustainability: Incorporate environmentally sustainable practices such as water-saving fixtures, energyefficient lighting, and eco-friendly cleaning products.
- 8. Culture sensitivity: Consider the cultural background of the potential users to include facilities that match their customs and preferences.

Different user groups face unique challenges when it comes to accessing public toilets. Here are some examples:

- 1. People with disabilities: Public toilets may not be designed or equipped to meet the needs of people with disabilities, such as those who use wheelchairs or have mobility issues. Lack of space, inaccessible entrances, and insufficient handrails or grab bars can make it difficult for these individuals to use the facilities independently.
- 2. Women: In many places, there is a lack of public toilets specifically designated for women, which can make it challenging for them to find a safe and secure place to use

the bathroom. Women also face a greater risk of harassment or assault in public toilets, particularly if they are poorly lit or located in isolated areas.

3. Children: Public toilets may be too high, too difficult to reach, or too complicated for young children to use independently. Additionally, parents or guardians may be reluctant to let their children use public toilets due to concerns about safety and cleanliness.

The purpose of the "Public Toilet for All" is to ensure that all members of the community have access to clean, safe, and accessible public toilets. It is an initiative aimed at promoting the provision of public toilets in all areas, including urban and rural settings, to address the lack of adequate public toilet facilities in many areas of the world.

The Public Toilet for All initiative aims to promote inclusivity and equality, ensuring that all people have access to basic amenities. This includes providing public toilets that are accessible to people with disabilities, women, individuals and children.

The initiative also aims to promote public health by providing a means for people to maintain their personal hygiene and prevent the spread of disease. Lack of access to public toilets can lead to poor sanitation practices, which can in turn lead to the spread of diseases such as diarrhea, cholera, and typhoid.

By promoting the provision of public toilets for all, this initiative can contribute to the development of sustainable, healthy, and equitable communities. It can also help to address social and cultural issues related to the stigma and discrimination that some groups may face when trying to access public toilet facilities.

OVERVIEW ACCESSIBLE PUBLIC TOILET

Accessible public toilets are designed to meet the needs of people with disabilities, ensuring that they can use the facilities independently and with dignity. Accessible toilets typically have wider doors, grab bars, and handrails, as well as sufficient space for wheelchair users to maneuver. These toilets may also include specialized equipment, such as accessible sinks, toilets with raised seats, and emergency alarms. Accessible public toilets are an important feature of inclusive communities, as they enable people with disabilities to participate fully in public life. Without access to these facilities, people with disabilities may be unable to attend public events, use public transportation, or participate in other aspects of daily life. Accessible public toilets can also help to promote public health by providing a means for people to maintain their personal hygiene and prevent the spread of disease. In addition to physical accessibility, it is also

important to consider the location and availability of accessible public toilets. These facilities should be located in areas that are easily accessible to all members of the community, and there should be an adequate number of facilities to meet demand.

Overall, accessible public toilets play an important role in promoting inclusion, equality, and public health. They are a vital component of inclusive communities that prioritize the needs and rights of all members, including those with disabilities.

There are several challenges and barriers that can make it difficult for people with disabilities to access public toilets. Some of these challenges include:

- 1. Physical barriers: Many public toilets are not designed with accessibility in mind, and may have physical barriers such as narrow doorways, steep stairs, or inaccessible layouts. This can make it difficult or impossible for people with disabilities, such as those who use wheelchairs or walkers, to use the facilities independently.
- 2. Lack of awareness: Many people may not be aware of the specific needs of people with disabilities when it comes to accessing public toilets. This can lead to a lack of consideration for accessibility when designing or renovating public facilities.
- 3. Stigma and discrimination: People with disabilities may face stigma or discrimination when attempting to use public toilets, which can make them feel uncomfortable or unwelcome. This can be particularly true for people with

disabilities that are not visible, such as those with intellectual or developmental disabilities.

- 4. Maintenance issues: Even when public toilets are designed with accessibility in mind, they may not be properly maintained, which can create barriers for people with disabilities. For example, broken or missing grab bars can make it difficult for people with mobility impairments to use the facilities safely.
- 5. Cost: Making public toilets accessible can be costly, which can be a barrier for some organizations or communities. This can lead to a lack of investment in accessibility features or a lack of priority placed on making public toilets accessible.

SENSE OF EQUALITY

Public toilets should be accessible to people of all ages, including children, adults, and the elderly. Different age groups may have different needs when it comes to public toilets, and it is important to take these needs into consideration when designing and maintaining these facilities.

For children, it is important to have toilets that are at a comfortable height and that have appropriate safety features, such as childproof locks and nonslip flooring. It may also be helpful to provide changing tables in family-friendly restrooms for parents with young children.

For elderly individuals, it is important to have toilets that are easily accessible and that have support rails to assist with mobility. Additionally, toilets should be designed to minimize the risk of falls and should have non-slip flooring to prevent slips and accidents.

For all age groups, it is important to provide clean and well-maintained toilets that are equipped with handwashing stations and sanitary supplies. Regular cleaning and maintenance are essential to ensure that public toilets are safe and hygienic for all users.

Overall, designing public toilets that are accessible and accommodating to people of all ages can help to promote public health and make our communities more inclusive and welcoming to everyone.

TOILETS FOR SPECIALLY ABLED

Public toilets should be designed to be accessible to individuals with disabilities, ensuring that they can use the facilities independently and comfortably. Here are some features that are important to consider when designing public toilets for people with disabilities:

- 1. Wheelchair accessibility: Toilets should be designed with adequate space for a wheelchair to maneuver, with clear floor space around the toilet and sink. The toilet should also be at a height that is suitable for someone in a wheelchair.
- 2. Grab bars and support rails: Support rails and grab bars can be installed to provide stability and support for individuals with disabilities. These should be placed at appropriate heights and locations to ensure maximum accessibility.
- 3. Non-slip flooring: Non-slip flooring is important for individuals who use crutches, canes, or wheelchairs, as well as for those with mobility issues.
- 4. Automatic doors: Automatic doors can be installed to make it easier for people with disabilities to enter and exit the toilet.
- 5. Braille signage: Braille signage can be added to help visually impaired individuals navigate the toilet facilities.
- 6. Accessible sinks and hand dryers: Sinks and hand dryers should be placed at a height that is suitable for someone in a wheelchair, and should be easy to reach



Public toilet measurement standards for people with disabilities are important to ensure that public toilets are accessible and comfortable for all users. Here are some common measurements for public toilets designed for people with disabilities:

- 1. Floor space: The floor space of a public toilet stall designed for people with disabilities should be adequate to allow for easy movement of a wheelchair. In general, the minimum floor space for a wheelchair-accessible toilet stall is around 60 inches (152 centimeters) in width and 56 inches (142 centimeters) in depth.
- 2. Stall dimensions: The dimensions of a toilet stall designed for people with disabilities should be large enough to allow for easy movement of a wheelchair. The standard dimensions of a wheelchair-accessible toilet stall are typically around 60 inches (152 centimeters) in width and 59 inches (150 centimeters) in depth.
- 3. Door width: The door of a toilet stall designed for people with disabilities should be wide enough to allow easy access for a wheelchair. The standard

width of a wheelchair-accessible toilet stall door is typically around 32-36 inches (81-91 centimeters).

- 4. Grab bars: Grab bars should be installed in toilet stalls designed for people with disabilities to assist with transfers to and from a wheelchair. The standard height of grab bars is typically around 33-36 inches (84-91 centimeters) above the floor.
- 5. Sink height: The height of sinks in public toilets designed for people with disabilities should be appropriate for users of all heights, including those in a wheelchair. The standard height of a sink is typically around 29 inches (74 centimeters) above the floor.
- 6. Clearance space: Adequate clearance space should be provided in public toilets designed for people with disabilities to allow for easy movement of a wheelchair. The standard clearance space for a wheelchair-accessible toilet stall is typically around 60 inches (152 centimeters) in width and 59 inches (150 centimeters) in depth.

These are general guidelines for public toilet measurements for people with disabilities, and specific regulations and guidelines may vary depending on the location and jurisdiction. It is important to follow these standards to ensure that public toilets are accessible, safe, and comfortable for all users, including those with disabilities.

TOILET FOR CHILDREN

Ensuring the hygiene of public toilets is essential to promote public health and prevent the spread of disease. Here are some important steps that can be taken to maintain the hygiene of public toilets:

- 1. Regular cleaning: Public toilets should be cleaned regularly, ideally multiple times a day, to prevent the buildup of bacteria and germs. This includes cleaning and disinfecting toilets, sinks, and other surfaces.
- 2. Adequate ventilation: Proper ventilation is important to prevent the buildup of unpleasant odors and reduce the risk of airborne illnesses.

- 3. Handwashing facilities: Handwashing facilities, such as sinks and soap dispensers, should be readily available in public toilets to promote proper hand hygiene.
- 4. Toilet seat covers: Providing toilet seat covers can help prevent the spread of germs and bacteria.
- 5. Adequate supplies: Adequate supplies, such as toilet paper, soap, and paper towels, should be available in public toilets at all times to encourage users to practice good hygiene.
- 6. Proper waste disposal: Public toilets should have appropriate waste disposal facilities to prevent the buildup of garbage and minimize the risk of vermin and other pests.
- 7. User education: Education and awareness campaigns can be implemented to encourage users to practice good hygiene in public toilets, such as washing their hands thoroughly and disposing of waste properly.



Public toilet measurement standards for kids are important to ensure that public toilets are safe, comfortable and convenient for children to use. Here are some common measurements for public toilets designed for kids:

1. Floor space: The floor space of a public toilet stall designed for kids should be adequate to allow them to move around safely and comfortably. In general, the minimum floor space for a kids' toilet stall



is around 12-15 square feet (1.1-1.4 square meters).

- 2. Stall dimensions: The dimensions of a toilet stall designed for kids should be smaller than those for adults, but large enough to accommodate the child comfortably. The standard dimensions of a kids' toilet stall are typically around 24-30 inches (61-76 centimeters) in width and 48-54 inches (122-137 centimeters) in depth.
- 3. Door width: The door of a toilet stall designed for kids should be narrower than those for adults, but wide enough to allow easy access for the child. The standard width of a kids' toilet stall door is typically around 24-30 inches (61-76 centimeters).
- 4. Toilet seat height: The height of the toilet seat in public toilets designed for kids should be appropriate for their age and size. The standard height of a kids' toilet seat is typically around 10-12 inches (25-30 centimeters) above the floor.
- 5. Sink height: The height of sinks in public toilets designed for kids should also be appropriate for their age and size. The standard height of a kids' sink is typically around 24-30 inches (61-76 centimeters) above the floor.
- 6. Clearance space: Adequate clearance space should be provided in public toilets designed for kids to allow them to move around safely and comfortably. The standard clearance space for a kids' toilet stall is typically around 24-30 inches (61-76 centimeters) in width and 48-54 inches (122-137 centimeters) in depth.

These are general guidelines for public toilet measurements for kids, and specific regulations and guidelines may vary depending on the location and jurisdiction. It is important to follow these standards to ensure that public toilets are safe, comfortable, and convenient for children to use.

TOILET FOR SENIOR CITIZEN

There are no specific public toilet measurement standards for senior citizens, as the needs of seniors can vary widely depending on their individual abilities and disabilities. However, there are some general guidelines that can be followed to make public restrooms more accessible for seniors.

Here are some considerations for public



restroom design that may be helpful for senior citizens:

- 1. Space: Ensure that there is enough space in the stall or bathroom to accommodate a mobility aid such as a walker or wheelchair.
- 2. Height: Consider installing raised toilets or adding grab bars to help seniors get up and down from the toilet.
- 3. Lighting: Ensure that the restroom is welllit to help seniors with vision problems navigate the space more easily.
- 4. Signage: Use clear and visible signage to help seniors find the restroom, and make sure that signs indicate whether the restroom is accessible or not.
- 5. Ease of use: Install automatic flush mechanisms, soap dispensers, and hand dryers to make it easier for seniors with limited mobility to use the restroom.
- 6. Non-slip surfaces: Install non-slip flooring and mats to help prevent slips and falls.
- 7. Accessibility: Make sure the restroom is accessible for seniors with disabilities, including those who use mobility aids such as wheelchairs or walkers.

HOW TO MAKE IT SUSTAINBLE

"The need of the hour is to focus on Selfsustainable, Alternative public toilet models that can be Replicated across geographies in an Eco-friendly way."

Transforming Public Sanitation

GARV Toilets is an idea to transform the public/community toilet landscape in the urban and peri-urban areas, specifically catering to the low-income, under-served communities by resolving the prime issues related to usage namely, vandalism and improper maintenance through design innovation, technology integration and involvement of communities.

Acknowledgment

The Author of the paper wishes to express her thanks to the guide of presented project Ar. Nitya Durve.

REFERENCES

https://economictimes.indiatimes.com/smallbiz/startups/features/swachh-bharat-missiongets-a-lift-from-garvs-smart-iot-enabledtoilets/articleshow/73045452.cms?fbclid=IwAR3 1JWzDD6LPS8-59kkahETzypn3eV9qBXs5005TCDraOMvJA4JgCd ANf7o

https://www.garvtoilets.com/

https://cpheeo.gov.in/upload/whatsnew/5c0a08 232e7afAdvisory%20on%20public%20toilet.pdf

https://materialworldblog.com/2011/05/everyb ody-goes-designing-age-friendly-public-toiletsolutions/

I