## Accessible Public Infrastructure the Only Way Forward

Barrier free universal design is the need of the hour especially in countries like India. With India on the threshold of infrastructure redevelopment this is the right time to take up the issues related to barrier free accessible public infrastructure.

#### **Observations**

The very expanse of the nation and the size of the population make the task of incorporating barrier free universal design features in the built environment daunting despite best of intentions. Low awareness levels, lack of trained manpower in the field and monitoring of implementation of various laws, rules, regulations and schemes further adds to the woes.

**Svayam**, an initiative of Sminu Jindal Charitable Trust steps in to fill the gap by way of undertaking audits, identifying problem areas, developing strategies to overcome the same as per international standards of accessibility and universal design and handhold the implementation process to ensure the accurate execution so that rightful needy benefit.

To date Svayam has been involved with government civic agencies like the NDMC as Access Consultants as well Education Ministry of Government of Delhi to make its public conveniences and schools accessible and barrier free respectively.

As Access Consultant to Archaeological Survey of India Svayam has so far undertaken access audits for the heritage site of Qutub Minar. The accepted report is currently at the implementation stage. Won over by the dedication and commitment of Svayam, ASI further invited Svayam to help make the World Heritage sites in Delhi, Agra and Goa barrier free.

Svayam is also involved in motivating corporate houses and hospitality giants like ITC and Hyatt to incorporate accessibility as one of their prime concerns in making their built and social environment barrier free and accessible to all.

For want of limited print space Svayam would like to take this opportunity to share its experience on two of the ongoing projects with NDMC and Delhi Transport Corporation.

Universal Access in the Public Conveniences Units of New Delhi Municipal Corporation (NDMC) and Bus Q Shelters of the Delhi Transport Corporation (DTC)

#### **Purpose of the Audit**

All public infrastructures should provide barrier free access to all including people with reduced mobility. Countries like India are at the threshold of laying the foundations of future infrastructure development and at the same time are redeveloping the old infrastructure. There cannot be a better time to incorporate universal design and barrier free environment concepts in all developmental activities being undertaken by various agencies.

The purpose of this study was to assess the sensitisation of the people involved in the implementation of the project towards accessible design, take a ground reality check, identify gaps in the end product due to improper execution and build stakeholders support.

Svayam identified civic agencies like NDMC and Delhi Transport Corporation, which was initiating redevelopment of the public conveniences, and the BUS Q Shelters respectively.

**Funding** – Moving away from the Exchequer Financing the Project mode to Public Private Partnership and Build Operate Transfer systems, the NDMC and DTC both have given preference to the BOT system where a concessionaire is identified through a tendering process, to construct and maintain the infrastructure as well as generate revenue by way of advertisements which is shared with NDMC and DTC.

#### Role of Svayam

Svayam is helping NDMC provide universal access by way of consultants who not only share the guidelines, specifications but architectural blueprints as well. The role does not end here, as it has been experienced that despite sharing the requisite information on all design aspects the end result could never match the specifications and standards of the accessible design that was given to the implementing agency. As a result the stakeholders could never reap benefits.

So to overcome the lag between the design phase and the actual end product Svayam felt that is was imperative to be actively involved with the executing agencies during the execution stage to ensure all standards and the specifications are adhered to during the implementation period itself.

A framework of involvement during the different stages was devised which is being followed at present. On site contacts with contractors were made, and inputs were sought from the end users so that it could be incorporated while construction is underway.

A detailed audit of 92 public conveniences was undertaken. Accessibility issues were discussed with the promoting Civic Agency in this case by NDMC. A detailed report along with guidelines and specifications complete with a draft action plan was given to NDMC.

## Status of public Conveniences infrastructure in New Delhi

- Till about half a decade back public conveniences as a part of Public infrastructure did not feature as a prominent subject.
- A feeble attempt did come up and basic public utilities were developed with little respite for female users. (perhaps nobody expected the females to step out of the four walls of their homes let alone any thought being spared for the disabled population)

This initiative of NDMC to make its public conveniences accessible to all represents a unique opportunity to remove barriers that come up, keeping the elderly and the disabled and even those suffering from temporary ailments from venturing out in the neighbourhood let alone go about their daily chores without timing themselves out or deny themselves a chance to step out and socialise or even conduct their business.

Currently 92 of public conveniences are being remodelled to incorporate barrier free universal access features. A conscious decision has been taken by the civic agency to incorporate the accessibility features in all the public conveniences that would be constructed in the future. The projected expansion plan includes the numbers going up to 150 public convenience units.

#### **Exposure to Universal Design**

Many planners and officials other than those who have travelled to developed nations have not had any first hand experience of accessibility features that accompany universal design in their immediate neighbourhood.

There is a lack of first hand experience and non-familiarity with emerging international norms for universal design. Nor have most disabled persons experienced the comforts of accessibility features in any public conveniences utilities. This initiative of constructing accessible public conveniences can be expected to serve as an example of inclusive design and help not only integrate this section of the society into mainstream but make them part of the social fabric and embrace them into its fold.

## Accessibility Issues Identified in the Existing Public Convenience Units

- Currently most of the Public Convenience Units do not have any universal design features.
- Most of these units do not have barrier free access from the pedestrian pathway or the road.
- In some of the cases the access to these facilities is via steps
- Non-availability of even a single unisex accessible toilet in the Public Convenience Units

#### Content of the Accessibility Guideline for Accessible Public Convenience Units

- Size specifications of the unisex accessible toilet
- Layout of the Unisex Public Toilet with emphasis on placement of the WC, Grab Bars, Washbasin, and door width specifications
- Accessible approach to the toilet block

- Ramped access wherever required along with design specification of the ramp
- Basic hygiene, safety and appropriate international signage and proper manning
- Issues like ventilation, natural light, rainwater harvesting, and alternate energy solutions like solar energy

# Delhi Transportation Corporation's Initiative to make its Public Transport System Inclusive and Accessible

DTC is currently involved in making Delhi's public transport system inclusive and accessible.

Not only it is in the process of acquiring new low floor buses but is also making the relevant supporting infrastructure like the Bus Q Shelters more accessible. A total of 2000 Bus Q Shelters are being remodelled.

However when Svayam undertook an audit of the sample Bus Q shelter that was constructed it found that still there were flaws in the execution, which need to be rectified to match the international standards and guidelines. The audit report was shared with the DTC authorities post, which a stakeholders meeting was convened to discuss the matter and take necessary remedial measures.

## Accessibility Issues identified in the Bus Q Shelter being developed by DTC

- The bus Q shelters being developed are isolated islands of accessibility in themselves.
- Absence of kerb ramps to access the bus Q Shelters from the bus bays and vice a versa
- Incorrect design of curb ramps where incorporated, characterized both by overly steep ramps and improper location of the same.
- At places the ramps exceed 1:12 ratio
- The horizontal gap issue between the floor of the bus q shelter and the low floor buses when docked needs to be addressed
- Incorrect placement of the tactile warning blocks
- Incorrect placement of the handrails
- Absence of auditory signal to help visually impaired identify that they are in the vicinity of the Bus Q Shelter

## **Key Issues Identified During the Formation of the Guidelines**

- Some of the areas of concern along with a correct design and layout guidelines to resolve issues which have occurred in the planning, design, and execution based on observations of the auditing agency in this case being Svayam and user group are as follows
- A near absence of user and focus groups to involve persons with disabilities across different disabilities at the planning stage as well as the monitoring of the same.
- Lack of co-ordination between various agencies with overlapping jurisdictions
- Need to have systematic, synchronized actions of various civic agencies with overlapping areas of jurisdiction failing which no implementation can bring the desired benefit to the end users.
- Inadequate training and monitoring of ground personnel involved with implementation.

#### Measures to be undertaken to link Accessibility issues with disability agendas

- Workshops to sensitise people on how to apply the guidelines, standards and specifications in different and often daunting circumstances at different levels who are involved in the implementation process.
- Workshops and simulation exercises to change attitudes and long held beliefs of the service providers as well as planners and implementers.

#### Conclusions

These two initiatives can serve as a benchmark of incorporating accessible and barrier free universal design that benefit the people with reduced mobility and help them undertake their day-to-day chores with independence and dignity. Yet this alone cannot suffice as adequate measure of efforts needed to make the public infrastructure truly accessible and barrier free.

Svayam is confident, every little step taken to overcome any discrimination by design will go a long way in mainstreaming of this hugely marginalized section of the society.

Abha Negi Director-Svayam & GM Corporate Communications