

# **Assessing Accessibility of person with disabilities in SMART CITIES in India**

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“A DISABILITY IS ANY CONDITION OF THE BODY OR MIND (IMPAIRMENT) THAT MAKES IT MORE DIFFICULT FOR THE PERSON WITH THE CONDITION TO DO CERTAIN ACTIVITIES (ACTIVITY LIMITATION) AND INTERACT WITH THE WORLD AROUND THEM (PARTICIPATION RESTRICTIONS).”

- AS PER AS CDC

“LONG-TERM PHYSICAL, MENTAL, INTELLECTUAL OR SENSORY IMPAIRMENTS WHICH IN INTERACTION WITH VARIOUS BARRIERS MAY HINDER [A PERSON'S] FULL AND EFFECTIVE PARTICIPATION IN SOCIETY ON AN EQUAL BASIS WITH OTHERS.”

- AS PER AS UNCRPD

# INTRODUCTION

Person with disabilities are one of the most important and diverse category of population and needed to be addressed in all development and decision making process.

According to the **World Health Organisation (WHO)**, about **15%** of the world's population lives with some form of disability.

*“India has one of the biggest populations of handicapped individuals in the world.”*

# NEED FOR STUDY

**World health organization** in 2011 estimated that **15.3%** of the world's population deals with disability of one kind or the other. United Nations, around one billion people live with disabilities globally.

The **Census of India 2011** says over **26.8 million** people in India have one or the other kind of disability. This is equivalent to 2.71% of the population. From 2001 to 2011 Decadal increase in proportion is significant in urban areas which is **1.93% to 2.7% of** the total population.

# AIM & OBJECTIVE

Aim of the study "**To give good quality of life by providing equal opportunity to person with disability**"

- To study the concept of disability and to study the initiatives taken for person with disability.
- To study the existing Act/policies on rights of person with disabilities in Indian cities.
- To understand the role of smart city mission in making cities accessible to person with disabilities.
- Planning interventions for reducing barriers for full participation of person with Disabilities in development and decision-making process and analyse the existing social and physical barriers for person with Disability
- To formulate proposals for making disabled friendly smart cities

# SCOPE

It is an exploratory study which is confined to persons with disabilities in urban areas .The study seeks to build an understanding of concepts related to disabilities, develop indicators through literature study and take into account the barriers experienced by persons with disabilities in urban areas. It also covers the existing condition of persons with disabilities by looking at their personal profile, accessibility issues, perceptions towards physical and social environment, extent of awareness about government initiatives and participation at local level etc.

# RESEARCH QUESTION

How to promote inclusion for people with disabilities?

# SMART CITIES MISSION

Smart Cities Mission, the flagship programme launched by Government of India in 2015, embarked upon creating a sustainable and an inclusive development through the provision of core infrastructure and a decent quality of life for 100 selected cities.

The Mission aims “to drive economic growth and improve the quality of life of people by enabling local area development and harnessing technology, especially technology that leads to smart outcomes

Broadly the smart city proposal comprises of **area-based and pan-city proposal**.

## **Components of Area Based Development**

City improvement (retrofitting), City renewal (redevelopment) and City extension (greenfield development)

**Pan-city** development envisages application of selected Smart Solutions to the existing city-wide infrastructure. Application of Smart Solutions will involve the use of technology, information and data to make infrastructure and services better.

# WHY SMART CITIES

The proposals of top 20 winning cities paint a poor picture in the inclusion of person with disabilities.

They always put people first. And 'people' by definition must include ALL the diverse groups that constitute the population of a city which also includes Person with disabilities.

Person with disabilities are invisible and excluded in components like safety, security, health, education, e-governance, affordable housing, etc. This huge group, which is already marginalised, runs the danger of becoming even more marginalised if the issues of accessibility and inclusion are not taken into consideration while building smart cities.

same year in 2015 the government had launched the Accessible India Campaign in order to achieve universal access for persons with disabilities. The Accessible India Campaign finds no convergence with the Smart Cities Mission despite the fact that there are 39 cities common between both these missions.

# SMART CITY AND DISABILITY

**Urban Infrastructure** - Universal design or Barrier free design components for buildings, parks, playgrounds, schools, colleges, hospitals, recreational areas, public toilets, etc.

**Transport**- Access to pathways, junctions, footpaths, bus shelters, crossings and public transportation.

**Health**- Availability, awareness and access to medical facilities, especially medicines.

**ICT Led Solutions** - Accessible digital technology for websites, mobile applications, products and services.

**Education**- Inclusive and quality education. Access to digital learning .

**Citizen Friendly Governance**- Accessible websites, applications, government portals or community engagement platforms.

# ISSUES AND CHALLENGES

**Accessibility:** Physical accessibility in buildings, transportation, access to services etc still remain a major challenge to disabled. Accessibility is not a "favor," but rather a fundamental right, and we must respect it as such

- **Built Environment Accessibility**
- **Transportation System Accessibility**
- **Information and Communication Eco-System Accessibility**

# HOW TO IMPROVE ACCESSIBILITY

- Making public spaces/ infrastructure fully accessible. This includes Government buildings, educational institutions, public housing, places of tourist interest, places of religious interest, parks, shopping areas, hospitals and health centers, airports, railway stations and bus stops, boat jetties, kiosks, ATMs etc.
- Ensuring accessibility of new ICT based solutions and systems ranging from being able to read price tags, to physically entering a hall, to participating in an event, read a pamphlet, understand a train timetable or view webpages. Ensuring Government websites, all mobile apps and documents developed are accessible for people with disabilities as per the standards.
- Promoting accessibility of services physical and digital and other service and knowledge centres.
- involving persons with disabilities in the development of policies and plans.

# DISABILITY BARRIERS TO INCLUSION

The World Health Organization (WHO) describes barriers as being more than just physical obstacles.

**Attitude** is the source of many barriers that people with disabilities face. Attitude relates to stereotyping and prejudice and directly correlates with how we deal with the problem overall. Many regard a disability as a tragic shortcoming of someone instead of proactively seeing the problem. Being proactive means considering a disability as a social responsibility to proactively accommodate disabled people to live a fulfilling life.

**Communication** barriers are common with people who are having trouble hearing, speaking or understanding in general. For example, not many products have provisions for vision-impaired people like a description in Braille. Alternatively, only a few people learn sign language that creates a significant communication barrier for many.

**Physical** barriers are everywhere. From the moment a disabled person steps out of home must deal with many obstacles. From walking on the pavement to coming down or climbing up the stairs, people with disabilities face various obstacles.

# DISABILITY BARRIERS TO INCLUSION

**Policy barriers** are due to a lack of awareness of disability inclusion. Policy needs to ensure enforceable laws that guarantee equal participation to our fellow impaired citizens' walks of life. Also, wherever this is impossible, the state should give benefits that guarantee decent living conditions. However, this should not be regarded as a charity (see attitude above) but rather as compensation for the State's inability to provide equal opportunities to equal citizens under the law.

**Social barriers** are everywhere and follow a person with a disability for life. These barriers have to do with how they grow, learn, work, live and age. For instance, people with disabilities are less likely to graduate high school, find work or have a good income.

**Transportation barriers** make disabled persons dependent on others for everyday things. Either they cannot drive or do not have access to convenient private or public transportation means. This dependence on others hinders their ability to travel and, therefore, to maintain a stable job.

# CASE STUDY

## Varanasi Smart City Proposal Analysis

The Varanasi smart city proposal focuses on rejuvenating the city by conserving and promoting its rich heritage through innovative inclusive solutions. The strategic goals of the city are to maintain the religious and heritage component of the city, making the city clean, to provide seamless mobility, to promote local entrepreneurship and smart services through use of ICT.

**The area-based development** succinctly covers disabled friendly interventions on the part of disabled friendly pathways, barrier free footpaths and disabled friendly toilets but Apart from the transport sector there are no provisions for persons with disabilities under various categories like skill development centres, smart bus shelters, heritage walks, etc.

# CASE STUDY

## **Bhopal Smart City Proposal Analysis**

The smart city proposal of Bhopal focuses on transforming the city into a leading destination for smart, connected and eco-friendly communities based on education, research, entrepreneurship, and tourism.

**The area-based development** aspires at providing compact, walkable and sustainable spatial morphology but mentions very few provisions for persons with disabilities under the heads of safety and social impact. These provisions do not, however, state the specific features that are going to be incorporated.

There are no elements that ensure the accessibility of persons with disabilities to places like public plazas, vehicle free zones, hubs or facility centres.

# LAW AND REGULATION OF INDIA AND AROUND THE WORLD

- The rehabilitation council of india act ,1992
- Person with disability act, 1995
- Disability discrimination act (DDA)
- United nation convention on the right of person with disabilities (UNCRPD) 2006
- Right of person with disability act 2016
- Accessible India campaign

# DISABILITY IN INDIA

- There are **26.8 million** people with disabilities in India according to the 2011 census of India,
- As per the Census 2011, there are **14.9 million men** with disabilities as compared to **11.9 million women** in the country.
- Social groups wise analysis shows 2.45 per cent of the total disabled population belong to the Scheduled Castes (SC), 2.05 per cent to the Scheduled Tribes (ST) and 2.18 per cent to other than SC/ST.
- A UNESCO and UNICEF (2015) study states that out of 2.9 million children with disabilities in India, 990,000 children aged 6 to 14 years (34 percent) are out of school. These findings are reinforced by another NCERT study that found that only 21.1 percent schools in the country adhere to inclusive education for children with disabilities.
- Only **54.5** percent of India's people with disabilities are literate. 13.4 million people with disabilities in India are in the employable age of 15-59 years of age. (Census 2011)

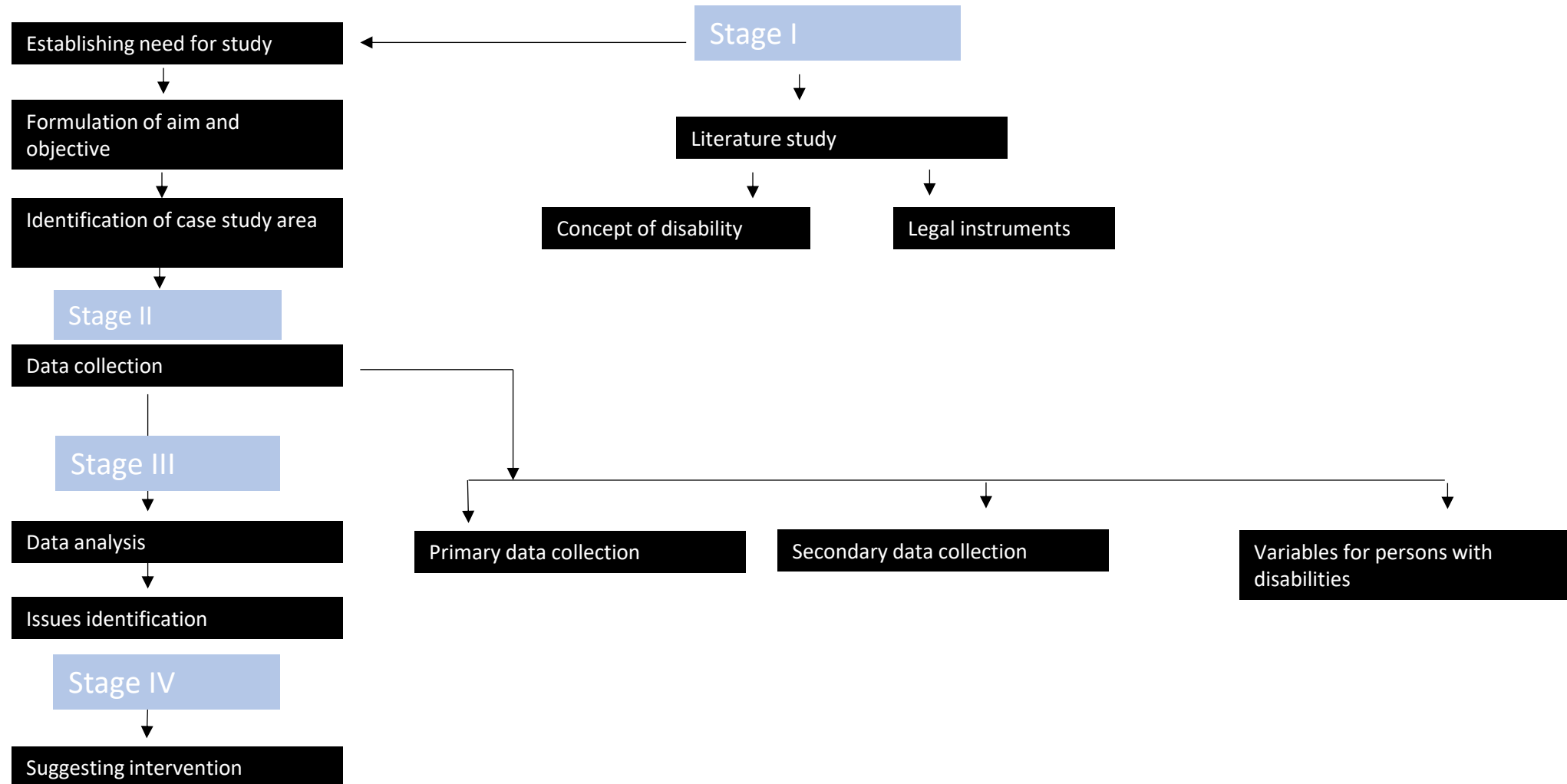
# SELECTION OF STUDY AREA-NEW DELHI

The NDMC vision has been incorporated in the area based proposal where it talks about universal access to the city centre with the special focus on persons with disabilities and achieving the global benchmark for accessible infrastructure for them.

The ICT-enabled solutions fail to involve the vision for the disabled. The components of the pan-city proposal such as e-governance, smart health and smart education ,where people with disabilities will be able to access digital libraries and specially designed courses, find no mention of persons with the disabilities

The features of e-governance like mobile citizen applications, smart display of realtime information of buses, accessibility to government data, online portals for government services have no provision to ensure the accessibility of these services by persons with disabilities.

# METHODOLOGY



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