

Inclusive City Framework



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Disclaimer

This book is intended as a guidebook for providing a benchmark for Inclusive development keeping in considerations primarily the needs of persons with disabilities and elderly.

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Inclusive City Framework

2021

दुर्गा शंकर मिश्र

सचिव

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Secretary



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MESSAGE

It is a moment of pride to be a part of the launch of the “*Inclusive City Framework*” by the Ministry of Housing and Urban Affairs. India has always embraced its socio-cultural diversities and believed in Mahatma Gandhi’s concept of development namely *Sarvodaya* through *Antyodaya*, implying the welfare of all. This is a fundamental virtue for the execution of the national programmes and missions of the Ministry of Housing and Urban Affairs.

Indian cities were home for nearly 31% of country’s population and contributed nearly 63% of GDP (Census 2011). It is expected that these numbers will grow to 40% and 75% respectively by 2030. These numbers are testament to the fact that cities are truly the engines of economic growth. While the cities prosper and so do its economies, which in turn leads to an improved quality of life. It is important that we are cognisant of the marginalised demographic groups, including persons with disabilities, women, and elderly. The cities should not only empower them but also consider them as equal contributors to the economic growth. The components of ‘Inclusion’ comprise - equal participation, representation, universal access, and equal opportunity which in essence echoes the vision of “*Sabka Saath, Sabka Vikas, Sabha Vishwas, Sabka prayas*”.

A new paradigm has been envisioned through the Inclusive city Framework which advocates integration of Inclusive Development components into planning and development of Indian cities. The six identified sectors viz. **housing and infrastructure development, livelihood and outdoor environment, urban mobility, Recreation, IT connectivity, and urban governance**, in the framework are essential to the working of city development.

I congratulate the team at the National Institute of Urban Affairs and Indian Institute of Technology, Kharagpur, for coming up with the robust framework. I encourage the cities to actively adopt this framework to evaluate their state of inclusion as well as integrate it into the entire city development process. I am confident that the framework will act as the guidebook to adopt Inclusion as an inherent part in city planning and design.

(Durga Shanker Mishra)

New Delhi

25th November, 2021

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MESSAGE FROM THE JOINT SECRETARY



India is moving on a progressive track of urban development while keeping sustainability, inclusion, resilience and community building at its core. We are building the urban narrative and our cities have immense potential to inspire the world and act as lighthouses to build “cities for all”.

With substantial investments going into transforming urban infrastructures, it becomes imperative to integrate the tenets of inclusion and universal access as a holistic approach to city planning and design. Implementation of inclusive and smart solutions in cities would enhance accessibility to urban infrastructure and services, thereby, improving the quality of life for all.

Urban living is complex and exclusion of the marginalised demographics increases the complexities for them further. Smart Cities have the potential both to change our cities for the better, and to reinforce existing inequalities. As Smart city Mission intends to redevelop the existing areas, create livelihood for locals, and develop new areas (e.g., greenfield areas), the framework will come in handy as a ready reckoner for inclusion in both sectoral as well as pan city projects. It would provide the metrics for compliance-aligned to the provisions of Rights of persons with disabilities Act, 2016 and other global commitments. It will act as a convenient means of tracking urban India’s progress towards achieving the level of inclusion in cities.

I would like to congratulate the team including Building Accessible, Safe and Inclusive Indian Cities anchored at National Institute of Urban Affairs and Department of Architecture and Planning, Indian Institute of Technology, Kharagpur for formulating a pioneering document. I would encourage all smart cities and other ULBs to actively utilise the framework and integrate its provisions in upcoming projects.

A handwritten signature in blue ink, consisting of stylized, flowing letters.

Shri Kunal Kumar
Joint Secretary
(Mission Director Smart Cities)
Ministry of Housing and
Urban Affairs



The 2030 agenda of the United Nations sets out goals to ensure that future cities, towns and basic urban infrastructures and services will be more environmentally-friendly, accessible, user-friendly and inclusive of all people's needs. The urban areas in India are diverse and their complexities are increasing with the advancement of technology and altering aspirations of its citizens. The process of building a "New India" transformed the approach conventionally adopted for city development.

The dynamics of the demographics is changing everyday. By 2050, India will have the largest percentage of elderly population with an active number engaged in the workforce. The 21 types of disabilities listed in the Rights of persons with disabilities act, 2016, makes the census figure of 2.21% of the population an underestimate. Women have become an active contributor to economic activities and children lead a more independent life. It is estimated that about 25% of the population need universal access. It is essential now for the cities to realise and be more congruent to the needs of these demographic groups.

Ensuring cities are inclusive is not always an easy task; it requires city planning and design to be conceived with inclusion as a number one priority. The "Inclusive City Framework" has been prepared as the comprehensive document to provide all inclusive provisions for identified six sectors- housing and infrastructure development; livelihood; outdoor environment, urban mobility and public transportation; Recreation and Tourism; IT connectivity, Digitization and urban governance. It includes 196 indicators to assess and evaluate the level of inclusion and monitor the periodic progress of the city. It is designed to ensure inclusion and universal access gets embedded into the nitigrities of urban ecosystems.

The document is part of the strategic partnership between Building Accessible, Safe and Inclusive Indian Cities (BASIIC) Programme (supported by Foreign, Commonwealth and Development Office, United Kingdom) at NIUA and Indian Institute of Technology, Kharagpur. I would like to specially appreciate the efforts of Dr. Subrata Chattopadhyya (Professor, IIT-KGP), Dr. Haimanti Banerji (Associate Professor, IIT-KGP) and their team; and, Mr. Utsav Choudhury and Ms. Kanika Bansal, NIUA in preparation of this document.

Hitesh Vaidya
Director
National Institute of Urban Affairs (NIUA)

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The Department of Architecture and Regional planning IIT Kharapur is privileged to be associated with the prestigious BASIIC Programme of NIUA as their strategic knowledge partner. We express our sincere thanks to our Director Prof. Virendra Kumar Tewari and Prof. Suman Chakraborty Dean of Sponsored Research & Industrial Consultancy for their support.

This project will go a long way towards making Indian cities accessible, safe and inclusive for all users. The Inclusive City Framework (ICF) is an integral part of this endeavour. To make this ICF a reality, IIT Kharapur research team has done extensive study both at the primary level as well as in the secondary level. The journey would not have been possible without the active and spontaneous assistance of all stakeholders.

IIT will specifically like to thank the following distinguished personnel. First and foremost, we thank Shri Hitesh Vaidya, Director, NIUA for selecting us for this association and extending his continuous encouragement and support. Mr. Ajay Suri, Senior Advisor and Head of Inclusive Cities Centre, NIUA for his constant support and guidance. Ms. Kanika Bansal, Mr. Utsav Chaudhry and other team members from Building Accessible, Safe and Inclusive Indian Cities Programme for their contribution and support in bringing the document to its present form.

As mentioned the work involved huge amount of field data collection. In this regard we got overwhelming support from leading institutes working with the vulnerable population. We thank Dr. P. Lenka, National Institute of Locomotor Disability National Institute of Locomotor Disability (NILD), Dr. Sujay Makar, The National Institute for the Empowerment of Persons with Visual Disabilities, The National Institute for the Empowerment of Persons with Visual Disabilities (NIEPVD), Dr. Patra, Ali Yavar Jung National Institute of Speech and Hearing Disabilities - Divyangjan (AYJNSHD), Dr. Amrita Panda, Pradip Centre for Autism Management Mrs. Ruma Chatterjee, Dignity Foundation, Mr. Jaidev Ghosh, South Point High School, Ms. Shampa Goswami, Sruti Disability Rights Centre, Mrs. Chandreyee Das from Hijli INSPIRATION and her team. We deeply acknowledge your whole-hearted support for this project.

We are also thankful to Review Committee members for their insightful ideas. Our report got a lot of value addition owing to the review and critique of Prof. Rachna Khare, SPA Bhopal, Prof. Rabidyuti Biswas, SPA Delhi and Ms. Anjlee Agrawal, co-founder, Samarthyam, National Centre for Accessible Environment.

We got constant guidance from our panel of experts and deeply acknowledge the contribution of Prof. Chetan Vaidya, former Director SPA Delhi, Mrs. Sumita Bagchi, Joint Secretary to the Govt. of WB, Mr. R. Srinivas, TCPO, Dr. Shweta Sharma, ICMR, Smaran Kumar Das, Institute of Town Planners, India, Papiya Sarkar, Delhi Metro Rail Corporation (DMRC) and Jit Kumar Gupta, State Town Planning Department, Govt. of Rajasthan.

A big thank you note goes to our scholars and project associates Ms. Purbita Samanta and Ms. Zinia Saha. This is an indicative list and by no means an exhaustive one. Any omission is purely unintentional.



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Executive Summary

Modern cities are convenient and enjoyable places for living and working to most of the users presenting varied levels of socio-economic opportunities and spatial experience. However, such designed urban environments are full of **latent uncertainties, hidden anxieties and potential dangers** for '**Vulnerable**' groups of people. These groups encounter several obstacles, which prevent them from moving freely and safely in urban environments, thereby causing social and economic segregation and finally self-withdrawal. In India itself, 25% of the country's population is estimated to need universal accessibility to live independently and with dignity and house the largest number of elder population in the world (approximately 20% of the world's elderly population) by 2050.

While cities contribute to about 80% of global GDP generated, it is essential to provide equal opportunities to all and adopt a comprehensive approach towards ensuring safety, accessibility and inclusivity. Urban inclusiveness, according to Henry Lefebvre (1996), can be achieved through "**participation,**" "**appropriation,**" and the creation of "**value**" in the context of urban life of its marginalized subjects.

The programme '**Building Accessible Safe and Inclusive Indian Cities (BASIIC)**' endeavours to promulgate the **principle of inclusivity in the ethos of urban planning and design** through policy level interventions, capacity building, pilot demonstration of contemporary solutions, and implementation of robust monitoring systems. NIUA has joined hands with its strategic partner Indian Institute of Technology (IIT), Kharagpur, to integrate the above principles into city planning guidelines and practices in the country.

In order to design accessible, safe, and inclusive cities, apart from proposing design guidelines and planning standards, there is a need for a robust methodology to identify the various physical, psychological, social, economic and institutional barriers to accessibility in a city in different sectors of urban areas especially for the vulnerable groups. The need to prepare a comprehensive **Inclusive City Framework (ICF)** was thus felt, with the following **dual purpose**:

1. **Sector-wise assessment** of the **existing cities** in terms of safety, accessibility and inclusivity.
2. Planning for safe, accessible and inclusive green-field cities.

The Inclusive City Framework (ICF) has been prepared as a set of policies and strategies which Urban Local Bodies/Smart City Boards and other relevant agencies need to follow while making an Indian city Safe, Accessible and Inclusive. The vision of this framework is to empower all citizens irrespective of their physical, sensory and cognitive limitations. The framework promotes **seamless accessibility** and a complete travel chain from a person's place of stay to the street; to the public transportation; on the transport vehicle; to the drop off point; to the destination building; inside the destination building to the room where the intended function would take place; and finally the function itself and back home. Strategies for improving opportunities for participation of "ALL" in the socio, economic and cultural functions of the city are also considered.

The objectives of the ICF are to:

- Conduct strategic accessibility analysis in a city referring to the suggested ICF components and indicators followed by analysis, planning and implementation
- Provide Inclusivity Score/ Star Rating to cities based on the audit
- Propose sustainable and user-centric guidelines and future pathways in terms of planning, implementation and review to serve the purpose of inclusivity
- Ensure engagement of all stakeholders and beneficiaries in the entire process

The preparation of ICF has been based on (i) **exhaustive systematic review of existing relevant acts, codes, guidelines**, (ii) **international and national best practices** and (iii) **multi-stage stakeholder's feedback**. The study has adopted a **participatory approach and collected feedback** on different types of physical, psychological, socio-cultural, economic and institutional barriers in the urban space, services and system from 250 respondents belonging to all the categories of the vulnerable groups as mentioned above. Significant stakeholders and experts in the urban system were also consulted to brainstorm on the causes of these barriers and possible solutions.

While framing the recommendations, 'whole' to the 'part' approach has been adopted to identify Six sectors, namely- **Housing, Physical and Social Infrastructure, Outdoor environment, Livelihood, Public transport and Mobility, IT connectivity, Digitalization, Governance and Citizen Participation and Tourism and Recreation**. In order to facilitate more critical micro-level assessment and interventions, the sectors have been further subdivided into 23 components and 196 performance indicators. Benchmarks have also been set for the indicators.

This framework acknowledges that demographic and socio-economic data analysis will be essential to understand the city-specific needs of all the beneficiaries of a proposed accessible, safe and inclusive city. However, it is an established fact that there is a major lack of usable data on disability, which needs to be compensated by primary data survey while drafting case-specific solutions and to follow the checklist provided as part of ICF. A strategic accessibility analysis of social and physical infrastructure along with the transportation system is proposed. The audit needs to include aspects related to safety, accessibility, reliability and affordability.

As an important step towards Good Governance, need for participation by vulnerable groups in the planning process and representation in the decision making bodies have been established along with special budgetary allocations for projects related to inclusivity in Urban Local Bodies.



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Introduction

Modern cities are convenient and enjoyable places for living and working to most of the users presenting varied levels of socio-economic opportunities and spatial experience. However, such designed urban environments are full of latent uncertainties, hidden anxieties and potential dangers for 'Vulnerable' groups of people.

In India, out of the 1,21,00,00,000 population 2,68, 00,000 persons are 'disabled' which is 2.21% of the total population. Out of these, 56% (1,50,00,000) are males and 44% (1,18,00,000) are females. 1, 86,00,000 of the disabled population (69%) reside in rural areas and 81,00,000 in urban areas (31%). The percentage of persons with disabilities in the total population has increased from 2.13% in 2001 to 2.21% in 2011. In rural areas, the increase was from 2.21% in 2001 to 2.24% in 2011 whereas, in urban areas, it increased from 1.93% to 2.17% during this period (Census of India). Statistics also reveal that of the total disabled population, nearly 55% are literate as compared to 74% in case of the total population and 36% of the total disabled persons are workers as compared to 39.1% in case of total population (Census, 2011). These figures establish a link between a lack of opportunity for education and employment leading to poverty which creates a vicious circle. Other than people with different types of disabilities, senior citizens, children and women also face different types of socio-economic, cultural and institutional barriers in the urban environment.

In the field of human rights, growing attention has been devoted to the rights of persons belonging to these "vulnerable groups". People belonging to these groups have certain common characteristics or are in a situation that has been shown to make these people more vulnerable to discrimination. They are especially "vulnerable" because these grounds for discrimination have been overlooked or insufficiently addressed in general human rights instruments. These people encounter several obstacles, which prevent them from moving freely and safely in urban environments, thereby causing social and economic segregation and finally self-withdrawal. Urban inclusiveness, according to Henry Lefebvre (1996), can be achieved through "participation," "appropriation," and the creation of "value" in the context of urban life of its marginalized subjects.

1.1. Definitions

The following terms are specifically defined for the purpose of this document:

"Barrier" means any factor including communicational, cultural, economic, environmental, institutional, political, social, attitudinal, psychological or structural factors which hampers the full and effective participation of persons with disabilities in society.

"Person With Disability" is a person with long term physical, mental, intellectual or sensory impairment which, in interaction with barriers, hinders their full and effective participation in society equally with others.

“Universal Design” means the design of products, environments, programmes and services to be usable by all people to the greatest extent possible, without the need for adaptation or specialised design and shall apply to assistive devices including advanced technologies for particular groups of persons with disabilities.

“Vulnerable group” for the purpose of developing this framework includes the following six categories of people under vulnerable groups:

- Physical impairments -locomotor disability including cerebral palsy, leprosy cured, dwarfism, acid attack victims and muscular dystrophy
- Vision Impairment- blindness and low vision
- Sensory Impairment- deaf and hard of hearing
- Intellectual/Functional/ Cognitive Disability -autism, intellectual disability, specific learning disability and mental illness
- Elderly - this will include persons above the age of 60 years belonging to all genders
- Children - this will include persons belonging to the age group of 5-14 years
- Women

The Rights of Persons with Disabilities Act, 2016 can be referred to for all other similar definitions.

1.2. Need For Inclusive City Framework

In India, though there are many existing standards and guidelines for design of barrier-free environments which offer piecemeal solutions in terms of building-level interventions, mobility systems, tourism etcetera. This framework is based on the notion that disability is not a physical issue, and present regulatory and statutory provisions are often incompetent to the needs and priorities of all categories of people who belong to the vulnerable groups. In order to design accessible, safe, and inclusive cities, apart from proposing design guidelines and planning standards, there is a need for a **robust methodology** to identify the various **physical, psychological, social, economic and institutional barriers** to accessibility in a city in different sectors of the urban area, especially for the vulnerable groups. The need to prepare a comprehensive framework was thus felt, to assess the state of inclusion and accessibility in existing urban environments as well as suggest a road map to inclusion.

The Inclusive City Framework (ICF) has been prepared as a set of policies and strategies which Urban Local Bodies / Smart City Boards and other relevant agencies need to follow while making any Indian city Safe, Accessible and Inclusive. The vision of this framework is the empowerment of all citizens of the city to participate and enjoy the facilities and services provided by the city and ensure individual growth. To achieve this, the framework promotes seamless accessibility and a **complete travel chain** from a person’s place of stay to the street; to the public transportation; on the transport vehicle; to the drop off point; to the destination building; inside the destination building to the room where the intended function would take place; and finally, the function itself and back home. Strategies for improving opportunities for participation of “ALL” in the socio, economic and cultural functions of the city are also considered.

The objectives of the ICF are to:

- Conduct safety, accessibility and inclusivity assessment of a city with reference to the suggested ICF components and indicators followed by strategic analysis, planning and implementation
- Provide Inclusivity Score/ Star Rating to cities based on the audit
- Propose sustainable and user-centric guidelines
- Ensure engagement of all stakeholders and beneficiaries in the entire process
- Finalize a future pathway in terms of planning, implementation and review to serve the purpose of inclusivity

The Inclusive City Framework (ICF) is developed with the following dual purpose:

- **Sector-wise assessment** of the **existing cities** in terms of safety, accessibility and inclusivity.
- Planning for safe, accessible and inclusive **green-field cities**.

The framework acknowledges that Demographic and Socio-economic data analysis will be essential to understand the city-specific needs of all the beneficiaries of a proposed accessible, safe and inclusive city. However, it is an established fact that there is a major lack of usable data on disability, which needs to be compensated by primary data survey while drafting case-specific solutions following a checklist provided as part of ICF (Refer section 2.3 INCLUSIVE CITY CHECKLIST). Although the methodology proposed in the framework has universal applicability for both designing new cities or retrofitting existing cities, appropriate fine-tuning might be required for tailor-made solutions for individual cases.

The steps elaborated in this framework towards an Inclusive City are to be supplemented with relevant Acts, Guidelines, Codes and Standards, Best Practices to support National, State and Local governments to implement the actionable points. **The process is not a linear flow, but rather a loop, suggesting a continuous and incremental nature to making cities safe, accessible and inclusive with adequate monitoring and feedback mechanisms.**

1.3. Guiding Principles

The guiding principles for **Inclusive Cities** are: Equitable, Usable, Cultural, Economic, and Aesthetic. These principles are derived from the **Universal Design India Principles © NID, 2011**, which are based on the social and cultural needs of the Indian people.

The five principles – Equitable, Usable, Cultural, Aesthetic and Economic – are ingrained in Indian sentiments and way of life and have been adopted to frame the various criteria or guidelines for safe, accessible and inclusive Indian Cities. The **guidelines which are specific to safe, accessible and inclusive cities within the broad structure of UDIP** are elaborated as below:

Figure 1: Guiding Principles for Inclusive Cities

Saman (Equitable)	Sahaj (Usable)	Sanskritik (Cultural)	Sasta (Economic)	Sundar (Aesthetic)
<ul style="list-style-type: none"> Guidelines should be fair and non-discriminating to diverse urban users. Avoid prejudices against people of all ages, gender, disability Consider different capabilities Provide choice Flexible Customizable Personalization through the inclusion of adjustable and adaptable options. Consider different levels of engagement 	<ul style="list-style-type: none"> Urban spaces, systems, facilities and services are independently operable with ease, simple, safe, easy to understand and comfortable. Induce clarity and minimize instruction to avoid confusion and costly error. Offer multi-sensory feedback to address user expectations, based on intuition and understanding. 	<ul style="list-style-type: none"> Urban spaces, systems, facilities and services should respect the cultural, historic, social and traditional qualities of a city. Prominent vernacular languages to be used for inclusive comprehension. Employ appropriate technology to match local context and user expectations. Ensure reliability of urban services and systems 	<ul style="list-style-type: none"> Urban spaces, systems, facilities and services should be affordable and maintainable to all. Local materials and technologies are to be promoted for energy savings and cost-effectiveness. Adopt a modular approach with the possibility of scaling up. Provide choices to suit all budgets. 	<ul style="list-style-type: none"> Urban spaces should be aesthetically pleasing to promote wider usage through universal appeal, belongingness and pride amongst citizens Improve imageability of cities. Allow personalizing aesthetics through flexibility, adaptability and modularity of colour, form and texture.

Inclusive City

2.1. Definition and Objectives

Definition: An Inclusive City shall provide a conducive environment ensuring equal opportunities and scope for dignified, independent and productive participation in various aspects of urban life for all citizens including the vulnerable groups. The urban spaces, services and systems will be equitable, accessible, safe, affordable, and culturally acceptable to all residents irrespective of their physical, sensory and cognitive abilities.

Following will be the **objectives** of Safe, Accessible and Inclusive Cities in order to eliminate **Physical, Social, Cultural and Psychological and Institutional Barriers**

	<ul style="list-style-type: none"> • Mind-set and Perception: awareness generation and sensitization amongst Temporary Able Bodied (TAB) persons towards the problems faced by the vulnerable groups and motivate TAB to ensure equal participation and a dignified living for all.
	<ul style="list-style-type: none"> • Accessibility: make spaces, facilities and services accessible to persons with disabilities, the elderly, women, and children.
	<ul style="list-style-type: none"> • Well-being: enhance overall livability conditions in a city which includes hard and soft infrastructure, aesthetics, functionality and safety aspects, to build an image of a city as well as enhance its competitiveness.
	<ul style="list-style-type: none"> • Equity: combat discrimination and ensure equal opportunity and wellbeing for all the citizens.

	<ul style="list-style-type: none"> • Participation: ensure that people belonging to the vulnerable groups enjoy all benefits of Indian citizenship, remove barriers to equal participation in public life and leisure activities, and promote the provision of quality community-based services.
	<ul style="list-style-type: none"> • Employment: increase the participation of people with disabilities, senior citizens and women in the formal and informal employment opportunities.
	<ul style="list-style-type: none"> • Education and training: promote inclusive education and lifelong learning for students and persons with disabilities to enable them to participate fully in society and improve their quality of life.
	<ul style="list-style-type: none"> • Health: promote equal access to health services and related facilities to all vulnerable groups.
	<ul style="list-style-type: none"> • Social protection: promote decent living conditions, combat poverty and social exclusion of the vulnerable groups.
	<ul style="list-style-type: none"> • Efficiency: ensure efficiency of urban spaces, services and systems conforming to set standards and benchmarks for wider usability and acceptability by the vulnerable groups.
	<ul style="list-style-type: none"> • Reliability: ensure reliability of urban services and systems for inducing confidence amongst people from the vulnerable groups.
	<ul style="list-style-type: none"> • Flexibility: ensure preparedness and commitment to address long-term challenges in making urban spaces, systems and services safe, accessible and inclusive to the vulnerable groups and to respond to the changing socio-economic and technological scenarios in any city.

2.2. Components of an Inclusive City

There are a plethora of components that were extracted from various acts, guidelines, standards and best practices to assess the Accessibility, Safety and Inclusivity of a city and its services. Since the framework targets to assess the level of inclusivity in a city, it was necessary to convert the components into measurable indicators. Figure 2 explains the **six sectors and 23 components** within the sectors.

Figure 2: Sectors, Components and Indicators of Inclusive Cities



Analysis of the field data collected during the process helped in the preparation of an exhaustive **checklist** for all six identified sectors which can be used by the Urban Local Bodies for undertaking a **strategic accessibility analysis** of the city and highlighting the priority areas. Since the indicators can be represented in different ways, the unit for assessment, nature of expected response and the benchmark has been mentioned against each indicator (Refer section 2.8.1, 2.8.2 and 2.8.3 for more details on collecting responses).

2.3. Inclusive City Checklist

2.3.1 Housing, Physical and Social Infrastructure

Accessible Housing	Units/ Benchmark	Response Type
1. Accessible mass housing is connected to accessible mass transit and located in areas that are safe and close to services	—	Binary
2. Mass housing units (public or private) are of adequate size to include universal design facilities as per Harmonized Guidelines with accessible infrastructures like electricity, water, sanitation and solid waste disposal.	Minimum 15% of units in any mass housing	Percentage
3. Mass housings have accessible parking (both visitor and residents) as recommended in URDPFI and Harmonised Guidelines	100% of mass Housing	Percentage
4. Units (apart from accessible units) in mass housing have flexible layouts to accommodate user-specific requirements	Minimum 15% of units in any mass housing	Percentage
5. Adequate number of accessible, clean, safe and affordable smart homes are integrated into relevant housing schemes.	—	Binary
6. Accessible, safe, affordable and clean institutional homes/ retirement homes/ rehabilitation centres are available for all budget	—	Binary
7. Accessible, safe, affordable and clean serviced apartments for independent living are available	—	Binary
8. Accessible, clean, safe and affordable rental housing is available for the different vulnerable groups	—	Binary
9. Specialized schemes and subsidies for house ownership are available for the vulnerable groups	—	Binary
10. Special cell / designated official at ward level itself ensuring specialised services ¹ for the vulnerable groups are available	—	Binary
Accessible Water Supply	Units/ Benchmark	Response Type
1. Accessible formal residential units have individual water connections at home	100% of accessible residential units	Percentage
2. Informal residential units are connected to universally designed community water sources with regular availability of water	100% of informal residential units	Percentage
3. The universally designed community source is located within 30 m from residential units and is reached by well-lit accessible pathways with proper signage for easy identification.	100% of informal residential units	Percentage
4. Public places have universally designed drinking water facilities per recommendations of Harmonized guidelines ²	—	Binary
5. All the community water sources are equipped with adequate signage and slogans with a humanistic appeal to allow a separate queue for vulnerable groups	100% of community water sources	Percentage
6. Incentives are given to mass housing projects (public/private) for using universally designed water supply and sanitary fixtures	—	Binary

¹1.Home-based personal care, 2. Support in maintenance of HH services and assistive devices, home gadgets & automobile maintenance, 3. Support in payment of tax / bill, 4. Home-delivery support of essentials and medicines in case of emergency, 5. Legal help and assistance 6. Grievance Redressal etc.

²Specially designed for children, persons in wheelchairs, persons with visual impairment, persons without limbs etc.

Accessible Sewerage, Sanitation And SWM	Units/ Benchmark	Response Type
1. Accessible units within mass housing (public or private) have at least one of the toilets as accessible/transactional toilet ³	100% of accessible units	Percentage
2. All informal residential units are connected to clean and accessible community toilets with accessible cubicles	100% of informal residential units	Percentage
3. The accessible toilets are located within 30 m from residential units and are reached by well-lit accessible pathways with proper signage for easy identification.	100% of informal residential units	Binary
4. Availability of universally accessible ⁴ public toilet complex	Minimum 15% of cubicles or at least 1 in number (whichever is more) per public toilet complex	Percentage
5. Community/public toilets have universally designed fixtures including sanitizer dispensers, hand wash dispensers, and feedback buttons on cleanliness, accessibility and other facilities.	100% of public toilets	Percentage
6. Attendants are available in all accessible public toilets.	100% of public toilets	Percentage
7. Diaper changing room, baby feeding room, changing rooms are available in all public toilets.	100% of public toilets	Percentage
8. Ward-level weekly cleaning drives/inspections are initiated, especially for accessible infrastructure.	—	Binary
9. Formal residential units have access to door-to-door solid waste collection system / accessible garbage chutes at each level in case of apartments	100% of formal residential units	Percentage
10. Colour coded and universally accessible dustbins are provided at strategic location (easily accessible by all) in outdoor space	—	Binary
11. Drains and service are covered with gratings as specified in standards, without interfering with the clear walking zone in the footpath.	100% of drains and service lines	Percentage
Accessible Health	Units/ Benchmark	Response Type
1. All levels of health care facilities are designed with universal access as per guidelines prescribed in URDPFI and Harmonized Guidelines	100% of all levels of facilities	Percentage
2. Accessible parking spaces are provided in all levels of healthcare centres as per guidelines prescribed in URDPFI and Harmonized Guidelines	100% of all levels of facilities	Percentage
3. Health care facilities are linked to accessible and affordable public transport.	—	Binary
4. Regular training programmes for the healthcare worker are organized to embed sensitivity and empathy for vulnerable groups	—	Binary
5. PHCCs (equipped to handle basic treatment, diagnosis and trauma care) are available at walking distance (within 1 km) and connected through accessible pathways to neighbourhoods and nearest transit points.	100% of residents	Percentage
6. Special cell /unit /designated official equipped with sign language interpretation and local vernaculars are available at all levels of health care facilities	100% of all levels of facilities	Percentage
7. Regular health camps are organized at neighbourhood level for routine check-ups, early detection and doorstep treatment.	—	Binary
8. Easy to read and clear information for all on healthcare in accessible formats in both electronic, as well as print media, is available. To support Information centres to be established at convenient locations at NH level	—	Binary

³as per the standards specified in Harmonized guidelines.

⁴as per the standards specified in Harmonized guidelines.

Accessible Health	Units/ Benchmark	Response Type
9. 24x7 services like doctor-on-call, ambulance-on-call are available for vulnerable populations including persons with disabilities.	100 % of residents	Percentage
10. 24x7 Tele-consultation, help-lines in different vernaculars as well as in sign language are available		
11. Availability and priority access of special services like home delivery of medicine and diagnostic facilities at an affordable rate	100 % of residents	Percentage
12. Chip-based systems for automatic health condition monitoring for vulnerable groups are available and controlled by nearby emergency health care service	—	Binary
13. Integration of 'one nation one health card' provision	—	Binary
14. Prioritization of persons with Disability UID card	—	Binary
15. Tailor-made healthcare schemes are available for each category of the vulnerable group particularly catering to long-term medical treatment of people with disabilities	—	Binary
16. Vaccination drives for children & nursing mothers are available	—	Binary
17. Community emergency plans for natural and man-made disasters have special provisions for vulnerable groups	—	Binary
18. Development of PHCC including inclusive provisions for play space and medicine shops (subsidized rates)	—	Binary
19. User-friendly smart devices are available at a subsidized rate for personal health monitoring at home	—	Binary
20. Local level volunteers are trained, encouraged and incentivized to support vulnerable groups for dissemination of healthcare-related information and extending support in an emergency situation including pandemics.	—	Binary
Accessible Education	Units/ Benchmark	Response Type
1. General schools are accessible as per the standards specified in Harmonized Guidelines	100% of general schools	Percentage
2. All educational institutions are linked to accessible and affordable public transport.	—	Binary
3. Accessible special schools are available (in accordance with URDPFI recommendations)	—	Binary
4. Disaggregated data on children with disabilities are available	—	Binary
5. Accessible special night schools/ vocational training centres are available for training and education	—	Binary
6. Compatible uses like old age homes and special education and training centres are linked	—	Binary
7. General schools offer parallel inclusive education, online classes and evaluation with allied facilities like audio-visual assistance, right-pace teaching	Minimum 10 % of general schools	Percentage
8. Incentives/subsidies are provided to special students to procure internet package, laptops / smartphones	—	Binary
9. Regular trainings are organized for teachers, staff and students in educational institutions for being empathetic to the needs of special children	—	Binary

Accessible Community Facilities	Units/ Benchmark	Response Type
1. Accessible banks and ATMs are available as per recommendations of Harmonized Guidelines and URDPFI Guidelines	100% of banks and ATMs	Percentage
2. Accessible banks and ATMs are linked to accessible and safe public transport	—	Binary
3. Religious places with ancillary facilities are accessible with proper signage following the recommendations of Harmonized Guidelines and URDPFI Guidelines	100 % of religious places	Percentage
4. Religious places are linked to accessible transport facilities.	—	Binary
5. Shopping facilities, particularly those dealing with essential goods like medicine, milk, grocery, food items are accessible following the recommendations of Harmonized Guidelines and URDPFI Guidelines	100 % of shopping facilities	Percentage
6. Provisions like special hours/priority delivery options are available	—	Binary
7. Shopping facilities are linked to accessible and safe public transport	—	Binary
8. Provisions for accessible & safe Informal markets at convenient locations.	—	Binary
9. Accessible convenient shopping is available within walking distance (less than 1 km)	100 % of the residents	Percentage
10. Auditoriums, cinema halls and theatres need to have reservations and special provisions for all types of disabilities, elderly and children as per design standards specified in Harmonized Guidelines	100 % of auditoriums, cinema halls, theatres	Percentage
11. Attendants are available at all important public places for assisting the vulnerable groups (as may be deemed fit by city authority in consultation with the public)	—	Binary

2.3.2 Outdoor environment

Safety and Convenience of Pedestrian and SMV	Units/Benchmark	Response Type
1. Accessible footpaths on all city roads are available as per IRC recommendations and harmonised guidelines.	100% of codal recommendations	Percentage
2. Safe, accessible, non-slip footpaths wide enough for wheelchairs are available and have dropped curbs to connect to road level as per recommendations of Harmonized Guidelines and IRC: 103-2012 Guidelines for Pedestrian Design Facilities.	100% of codal recommendations	Percentage
3. Pedestrian crossings are available at appropriate places designed with safe and inclusive provisions for persons with different disabilities, with nonslip markings, visual & audio cues, adequate crossing times as per Harmonized Guidelines and IRC: 103-2012 Guidelines for Pedestrian Design Facilities.	100% of codal recommendations	Percentage
4. Traffic signs and intersections are available at convenient and visible locations as per IRC recommendations	100% of codal recommendations	Percentage
5. Service lanes are available for slow-moving vehicles as per IRC recommendations	100% of codal recommendations	Percentage
6. Availability of separate cycle tracks on busy urban roads (as per IRC recommendations) with an affordable bike hiring facility and provisions of movement of assistive mobility devices.	100% of codal recommendations	Percentage
7. Wheelchair charging stations are available at convenient locations	—	Binary
8. Footpaths are child friendly with interactive and playful design	—	Qualitative
9. Grade separator pedestrian crossing including subways and overhead bridges are accessible as per Harmonized Guidelines	—	Binary

Accessible Amenities and Facilities	Units/Benchmark	Response Type
1. Accessible, safe and clean amenities including toilets, drinking water and seating, shaded standing areas for weather protection are available in important public areas (as may be deemed fit by city authority in consultation with the public)	—	Binary
2. Special provisions like dedicated accessible counter/help desks/ ticket windows/vending machines are available for aged and disabled at appropriate and popular public areas (as may be deemed fit by city authority in consultation with the public)	—	Binary
3. Public places are clean, well maintained and aesthetically pleasing	—	Qualitative
4. Public places are free from obnoxious smell and solid waste dumping with conveniently located litter bins	—	Qualitative
Accessible Information & Easy Way-Finding	Units/Benchmark	Response Type
1. Public places have adequate way-finding information through Tactile, Visual and Auditory means and help-line numbers	100 % of public places	Percentage
2. Street signage are available as per design recommended in IRC: 67-2012 Code of Practice for Road Signs and Harmonised Guidelines	100 % of public places	Percentage
3. Illumination in streets and public areas follow the BIS 1981	100% of streets and public areas	Percentage
4. Accessible Wi-Fi zones with seating facilities are available in important public areas (as may be deemed fit by city authority in consultation with public/ within the capacity of the concerned authorities)	—	Binary
5. Facility of charging assistive devices are available within Wi-Fi zones.	—	Binary
Safety, Security And Reliability	Units/Benchmark	Response Type
1. Regular police patrolling and CCTV installation at underpasses, bus stops, metro rail stations	100 % of locations mentioned	Percentage
2. Well-lit underpasses and walkways with some vendors and other activities are available to ensure safety to women and vulnerable groups.	100% of underpasses/ walkways	Percentage
3. Regular police patrolling and CCTV installation at important public areas are available (as may be deemed fit by city authority in consultation with the public).	—	Binary
4. 24 X 7 helpline numbers (in accessible formats) along with helpdesks for vulnerable groups are available at important public areas (as may be deemed fit by ULB in consultation with the public)	—	Binary
5. Grievance and assault reporting officers are available who are sensitive to the needs of the vulnerable groups	—	Binary
6. Regular initiatives are taken by ULB for keeping streets and public places free from stray animals	—	Binary

2.3.3 Livelihood

Employment Opportunities for Vulnerable Groups	Units/Benchmark	Response Type
1. A range of flexible options (formal and informal) are available for employing people from all vulnerable groups	—	Binary
2. Self-employment options for vulnerable groups are promoted through incentivization and reservation (advertised through various modes)	—	Binary
3. Schemes for vulnerable groups to avail financial help for business/ self-employment are available and advertised through various modes	—	Binary
4. Accessible websites, as well as Accessible one-stop information centre (in each ward), are available to appraise people on available employment opportunities and schemes	—	Binary

Accessible Working Environment And Policies	Units/Benchmark	Response Type
1. All government offices/ institutions / factories have an accessible and conducive work environment as per standards recommended by Harmonized Guidelines and URDPFI Guidelines.	100% of places mentioned	Percentage
2. Private offices/ institutions / factories have an accessible and conducive work environment as per standards recommended by Harmonized Guidelines and URDPFI Guidelines.	—	Binary
3. Accessible and safe work environment exists for involvement of vulnerable groups in the informal sector like street vendors, hawkers as per URDPFI Guidelines.	—	Binary
4. Accessible and safe special transport services (public / private) are available for vulnerable groups during office hours at subsidized rates	—	Binary
5. Child care facilities / crèche are available at offices for parents with kids	—	Binary
6. All public and private offices/ institutions / factories have 'vulnerable-group friendly policy' which includes on-job training, opportunities for career advancement, job security, pay protection and other benefits sensitization and awareness programmes to remove social stigma	—	Binary
7. All public and private offices/ institutions / factories have reasonable accommodation policy with involvement of specialised consultant	—	Binary
8. All public and private offices / institutions/ factories have provision of flexible working mode like WFH and flexible working hours with special T&C for vulnerable groups	—	Binary
Training & Capacity Building	Units/Benchmark	Response Type
1. Job-centric training programmes are available for vulnerable groups (on-line and off-line) and through FM channel	—	Binary
2. 'School-to-Work Transition Programmes' are available for vulnerable groups in special schools	—	Binary
3. Schemes / incentives are available to support private sector employers for hiring, training and integrating vulnerable groups into their organization / institution	—	Binary
4. Accessible and affordable institutions running vocational/skill courses for PwDs are available	—	Binary

2.3.4 Urban mobility and public transport

Accessible Urban Bus Services	Units/Benchmark	Response Type
1. The city has an Inclusive City Mobility Plan which proposes to connect all areas and services by accessible bus service ensuring adequate frequency	—	Binary
2. Frequent bus services are available including night-time and weekends services based on ground data collected on travel pattern	—	Binary
3. Provisions for hassle-free boarding and alighting, comfortable travel, getting information, on-board comfort and ticket purchasing (following the recommendations of Harmonized Guidelines, Urban Bus Specification, 2008, 2018 and IRC: 124-2017 Bus Rapid Transit (BRT) Design Guidelines for Indian Cities)	100% of vehicles	Percentage
4. Accessible and conveniently located terminal and stops, with easy transfer from other modes, clean, well-marked, well maintained and well lit, for hassle-free ticket purchasing, boarding and alighting, comfortable waiting, with accessible, legible and reliable information on vehicles, routes, frequency (following the recommendations of Harmonized Guidelines, IRC: 124-2017 Bus Rapid Transit (BRT) Design Guidelines for Indian Cities)	100% of terminal and stops	Percentage

5. Bus services are affordable to all users (perception-based assessment) and with accessible (digital) payments	—	Qualitative
6. Bus services are safe and reliable to all users (perception-based assessment)	—	Qualitative
7. Accessible information on general and specialized services and facilities are available at all terminals/stops, through accessible websites, help-line numbers	—	Binary
8. Drivers are trained to stop at designated halts and beside the curb to facilitate boarding and wait for passengers to be seated before driving off and are penalized for acting otherwise	—	Qualitative
9. Human assistance is available at terminals, at major stops, within all vehicles	100% of places mentioned	Percentage
10. Integration of a mechanism for crowd management in terminals/ stops is ensured by deploying a group of trained volunteers/ staff for generating confidence and a sense of security amongst vulnerable groups	—	Binary
11. Feedback / complaint register system are available through accessible means at terminal /stops /within vehicles /accessible web-site / help-line number	—	Binary
Accessible Railways / Metro Rail	Units/Benchmark	Response Type
1. Land use plan / master plan of the city is integrated with the railway/ metro lines so that major areas are within coverage.		Binary
2. Provisions of hassle-free boarding and alighting, comfortable travel, getting on-board information on destination arrival, (following recommendations of Harmonized Guidelines, Manual for standards and specifications for railway stations, 2009).		Binary
3. Accessible intermediate stations and terminals are with easy transfer from other modes, ticket purchasing, hassle-free boarding and alighting, comfortable waiting, easy and reliable information on trains, routes, frequency (following recommendations of Harmonized Guidelines, Manual for standards and specifications for railway stations, 2009)	100% of intermediate stations and terminals	Percentage
4. Train / metro services are frequent including night-time and weekends services based on ground data collected on travel pattern		Binary
5. Train / metro services are affordable to all users (perception-based assessment) and with accessible (digital) payments		Qualitative
6. Train / metro services are perceived as safe and reliable to all users (perception-based assessment)		Qualitative
7. Accessible information on general and specialized services and facilities are available at all terminals / stops, through accessible web-sites and accessible help-line numbers		Binary
8. Accessible information on train availability, arrival time, platform number, time required to reach there, halting time, exact location of accessible (barrier free) coach through visual and auditory means		Binary
9. Human assistance is available in terminals, stations, within special coaches	100% of places mentioned	Percentage
10. Integration of a mechanism for crowd management in terminals / stops is ensured by deploying a group of trained volunteers/ staff for generating confidence and a sense of security amongst vulnerable groups		Binary
11. Feedback / complaint register systems are available at terminal / station / within special coaches/ accessible web-site / help-line number		Binary

Accessible Paratransit (Auto/Toto/Uber)	Units/Benchmark	Response Type
1. Inclusive City Mobility Plan has defined routes for maximum end-point connectivity based on ground data on travel pattern and modal choices	—	Binary
2. Para-transit stands are accessible, conveniently located, safe, with adequate signage for easy identification of vehicles for different destinations	100% of para-transit stands	Percentage
3. Accessible options of vehicles which can accommodate wheelchairs are available	15% of vehicles in each route	Percentage
4. Presence of grab bars for anchoring oneself safely within vehicle	100% of vehicles	Percentage
5. Paratransit services are affordable to all users (perception-based assessment)	—	Qualitative
6. Para-transit services are perceived as safe and reliable to all (perception-based assessment)	—	Qualitative
7. Accessible city-apps and help-line numbers are available for pre/instant booking of vehicles	—	Binary
8. Drivers are trained to stop at designated stops to facilitate boarding and waiting, for passengers to be seated before driving off and are penalized for acting otherwise	—	Qualitative
9. Feedback / complaint register system is available through accessible website / help-line number	—	Binary
Accessible Hired Cars / Taxis / Special Services	Units/Benchmark	Response Type
1. Drivers are trained to be sensitive to the needs of all passengers and are penalized for acting otherwise	—	Binary
2. Accessible vehicles which can accommodate wheelchairs are available pan-city	15% of vehicles	Percentage
3. Presence of grab bars for anchoring oneself safely within vehicle	100% of vehicles	Percentage
4. Hired Cars / Taxis / Special services are affordable to all (perception-based assessment)	—	Qualitative
5. Hired Cars / Taxis / Special services are safe and reliable to all (perception-based assessment)	—	Qualitative
6. Accessible city-apps and help-line numbers are available for pre/instant booking of vehicles	—	Binary
Personal Vehicles And Parking	Units/Benchmark	Response Type
1. Accessible parking and drop off areas are available in important public areas (as may be deemed fit by city authority in consultation with the public)	—	Binary
2. Special licenses are issued by city RTO for the vulnerable group to drive modified vehicles	—	Binary
3. Sensitization attempts are taken by ULB in association with corporates and NGOs to sensitize drivers on road towards persons from vulnerable groups who are self-driving	—	Binary

2.3.5 IT connectivity, Digitalization, Governance and Citizen Participation

Internet Connectivity And Digitization	Units/Benchmark	Response Type
1. Information on city websites related to essential urban services and amenities are accessible and user-friendly following the recommendations of Guidelines for Indian Government Websites along with an integrated feedback mechanism	—	Binary
2. Website of the ULB has a mobile app version and it connects to accessible facilities and services offered by allied agencies	—	Binary
3. Information on availability of specific accessible places/services/products in a city is available through various modes (print media, electronic media, accessible websites, one-stop NH information centres / mobile vans/temporary camps)	—	Binary
4. A list of Government and Non-government organizations working for vulnerable groups is made and the information is available on city's website in accessible format	—	Binary
5. Simple, familiar words, in short, straightforward sentences in legible font are used in print communication as per Harmonized Guidelines	—	Qualitative
6. Provision for giving instructions slowly and clearly and telling callers how to repeat the message at any time in telephone answering services.	—	Qualitative
7. Accessible wi-fi zones with free connection are available in important public areas (as may be deemed fit by city authority in consultation with the public)	—	Binary
8. Affordable internet packages are made available for vulnerable groups as part of CSR	—	Binary
Inclusive Governance	Units/Benchmark	Response Type
1. City has an Inclusive City Plan based on access audits, real-time data on vulnerable groups and Citizen Perception Survey	—	Binary
2. Data on the demographic and socio-economic profile of the vulnerable group is available	—	Binary
3. Incorporation of Universal design standards and related development control norms as per URDPFI Guidelines, IRC, Harmonized Guidelines into the City Vision Plan, / CDP / Master Plan have been done	—	Binary
4. Training and sensitization programmes for all public and private employees towards specific needs of the vulnerable groups are regularly organized by respective organizations/ institutions associated with essential services and urban amenities	—	Binary
5. Permanent/contractual staff with expertise in disability studies are engaged by public and private organizations associated with general and specific essential services for designing websites and other communication portals	—	Binary
6. Multi stakeholder collaborations involving different private and public agencies, non-profit organizations, individuals, research institutes are promoted amongst essential service providers for creating inclusive places and facilities in the city	—	Binary
7. ULB has a special cell / department / official looking after the planning, implementation, financing and monitoring of all activities related to creating inclusive places and facilities in the city.	—	Binary
8. Budgetary allocation of the ULB has been considered for planning and developing new/retrofitted projects for creating inclusive places and facilities in the city and also giving incentives/ subsidies / financial support to private sector organizations / individuals for the same.	—	Binary
9. Adoption of inclusive schemes/programmes for the vulnerable groups at city level	—	Binary

Inclusive Governance	Units/Benchmark	Response Type
10. UID cards are issued to all People with Disability	100% of PWD	Percentage
11. Special provisions for vulnerable groups at election booths are available	100% of the election booths	Percentage
Participation of Vulnerable Groups	Units/Benchmark	Response Type
1. Citizen feedback surveys which are conducted by public / private organizations / institutions associated with urban planning and development / essential services have accessible options for participation by vulnerable groups (minimum 15 % of respondents)	—	Binary
2. Accessible online grievance redressal mechanisms are available	—	Binary
3. Week-long awareness generation programme /conferences/ workshops/road-shows/exhibitions are organized on special occasions for sensitizing people towards the issue of inclusivity	—	Binary
4. City-specific benchmark, access audit manuals and guidelines are prepared for each sector by involving all stakeholders in consultation with representatives from the vulnerable group.	—	Binary
5. Incentives / rebates are provided to manufacturers of universal products and providers of universal services	—	Binary
6. People from vulnerable groups are encouraged on special days/ occasions by giving recognition for their contribution in society.	—	Binary

2.3.6 Tourism and recreation

Accessible, Safe & Affordable Tourism	Units/Benchmark	Response Type
1. Accessible, safe and inclusive out-station tourist destination/ circuits are advertised through multiple modes by the private tour operators in the city	—	Binary
2. City tourist destinations are safe and accessible following the w recommendations of Harmonized Guidelines and URDPFI along with sensitive guides adequately trained to deal with the problems of the vulnerable groups	—	Binary
3. Accessible and safe tourist destinations are connected by accessible, safe, and inclusive transport	—	Binary
4. Hotels of all categories are available which have at least 15% of their rooms accessible and 100% of common facilities like restaurant, café, pool, lawn, banquet accessible as per the recommendations of Harmonized Guidelines	—	Binary
5. Single-point accessible tourist help desks with all information are available at convenient locations having trained staff to communicate with vulnerable groups	—	Binary
6. The city tourism website is accessible to all	—	Binary
7. There is scope for satisfactory virtual tours through the application of Augmented Reality	—	Qualitative
8. Confidence building attempts are made amongst vulnerable groups and their family members online and through mobile camps / NH level centres / private operators to make them aware of accessible facilities encouraging them to travel for leisure	—	Binary

Accessible, Safe Recreation For All	Units/Benchmark	Response Type
1. Accessible and safe recreational, cultural and leisure facilities are available as per the recommendations of Harmonized Guidelines and URDPFI	100% of facilities	Percentage
2. These facilities are connected by safe, affordable and accessible public transport	—	Binary
3. Accessible and safe shopping (indoor and outdoor) are available as per recommendations of Harmonized Guidelines and URDPFI	100% of facilities	Percentage
4. These facilities are connected by safe, affordable and accessible public transport	—	Binary
5. Accessible and safe sports facilities, parks and playgrounds are available as per the recommendations of Harmonized Guidelines and URDPFI	100% of facilities	Percentage
6. These facilities are connected by safe, affordable and accessible public transport	—	Binary
7. Accessible and safe parks/ playgrounds / multi-sensory parks are available	—	Binary
8. Accessible and safe para-sports and para stadiums are available	—	Binary
9. Accessible and safe library/theatre/cinema/ community hub offering activities for vulnerable groups are available as per recommendations of Harmonized Guidelines and URDPFI	100% of facilities	Percentage
10. These facilities are connected by safe, affordable and accessible public transport	—	Binary
11. A wide variety of activities are offered to appeal to diverse populations of vulnerable groups based on city profile	—	Qualitative
Accessible, Safe Recreation For All	Units/Benchmark	Response Type
12. Special FM channels are available for vulnerable groups with interactive programmes	—	Binary
13. User-friendly Apps are available to help persons with disabilities to participate in different activities and events of the city by providing live visual and sign language interpretation during events and information on accessibility facilities on the arena	—	Binary
14. Adequate and updated information is available about city level activities and events through different modes, including details about accessibility of facilities and transportation options for vulnerable groups.	—	Binary
15. Integration of reliable mechanisms for crowd management through volunteers and/or architectural measures like separate entry/exit and queuing areas etc.	—	Binary
16. Consistent outreach for inclusion of vulnerable people at risk of social isolation is carried out	—	Binary

2.4. Towards Building an Inclusive City

The program “Building Accessible, Safe & Inclusive Indian Cities (BASIIIC)” is spearheaded through the Inclusive Cities Centre, at National Institute of Urban Affairs (NIUA). It endeavours to promulgate the tenets of accessibility, inclusivity and safety in the ethos of urban planning and design. Under the strategic partnership with the Department of Architecture and Regional Planning, IIT Kharagpur, the Inclusive Cities Framework has been prepared to mainstream inclusion into different aspects of city development. The framework will be made available to ULBs and other authorities along with necessary capacity building framework and toolkit. It is envisaged to support the city officials in integrating inclusive design principles into all sectors of urban planning and development. The checklist provided in this document will act as a guideline for new projects as well as for retrofitting.

2.5. Preparation of Inclusive City Plan (ICP)

The Inclusive City Planning principles can be integrated into

- Urban Retrofitting or redevelopment projects /sectoral plans and projects
- Pan-city plan (Developmental/ Master Plan)
- Greenfield city/project plan

The focus will be on transformative projects with the highest possible impact on

- (i) accessibility to maximum number of urban spaces, services and systems by all
- (ii) safety of the vulnerable groups
- (iii) improving the quality of life for all, especially the vulnerable groups.

Application of smart technology will help to develop innovative solutions as well as collect disaggregated and updated data to ensure evidence-based planning. Plan will be focused on integration into the smart city projects and use of smart technologies for the empowerment of vulnerable groups.

Technical support and guidance would be required by the cities to identify and integrate the **relevant standards** for upcoming projects. This highlights the need for involvement of experts and consultants from the domain of inclusion and universal accessibility in the entire urban cycle.

Following steps may be followed by the Urban Local Body of a selected city:

- 1. Accessibility Audit:** A city wide accessibility audit will help to identify the gaps and barriers in the process of planning, design and implementation. An access audit would assist in establishing how well an urban system (infrastructure/services) performs in terms of accessibility and usability by a wide range of potential users in general and the vulnerable groups in particular. . The audit toolkit⁵ developed under BASIIC Programme at NIUA could be referred for undertaking such audits at both macro (pan city) and micro (projects/ site specific/ward/ zone) level assessment of urban services and infrastructure.
The first step will be collecting city baseline information which would include demographic and socio-economic data about the vulnerable population of the city from secondary sources. This will be followed by an audit of the existing situation to assess the performance of the city against the indicators outlined under the 6 identified sectors (section 2.3) Data to be collected in these stages will be both qualitative and quantitative in nature. The audit format should mandatorily include a consultative exercise to collect feedback from representatives of all categories of vulnerable groups on sector-wise physical, psychological, social and institutional barriers faced by them.
- 2. Setting of Goals and Objectives:** Based on the data analyses and collation post-audit, future goals for the city need to be set while being cognizant of the city profile, preparedness, opportunities, physical, budgetary provisions, financial and legal constraints and relative priorities. These goals and objectives are to be reviewed by the Advisory Forum for Accessibility and Inclusion (refer section 2.9), which includes representatives from the vulnerable groups.

⁵The toolkit is presently focused on the concept of "Disability Inclusive Accessible Urban Development" catering to the marginalised population of persons with disabilities. The same can be further modified to cater to a larger segment of the vulnerable population.

3. **Plan formulation:** The plan needs to refer to the guiding principles, which are described under the various components of the Inclusive city checklist (within the 6 sectors) in this document. For technical details, the recommendations will follow as given in:

- relevant sections of URDPFI,
- IRC: 103-2012 Guidelines for pedestrian design facilities,
- IRC: 67-2012 Code of Practice for Road Signs,
- IRC: 124-2017 Bus Rapid Transit (BRT) Design Guidelines for Indian Cities,
- Harmonized Guidelines,
- Guidelines for Indian Government Websites
- and all other relevant and applicable guidelines.

The technical experts and user groups are to be consulted throughout the process of plan formulation. There should be an adequate number of stakeholders' meetings and Focus Group Discussions during the planning process.

3. **Plan integration:** The Inclusive City Plan will require the ULBs to integrate inclusive design guidelines into their various plans like CDP, sectoral plans, Master Plan, Local Area Plan or Zonal Development Plan, and in DPRs of upcoming projects (as may be applicable). This would require a thorough review of the existing plans by involving user groups and domain experts. A multi-sectoral approach needs to be adopted with adequate level of stakeholders' participation

4. **Project identification:** This should aim at identifying measures for achieving the goals set in the Inclusive City Plan, in a time-bound manner. The projects should include all the following aspects of inclusion:

- Retrofitting of existing urban infrastructure to be accessible, safe and inclusive
- Building new and dedicated infrastructure
- Modifications in processes and systems (including important websites) to make them accessible and inclusive
- Devising accessible and inclusive strategies for wider information dissemination
- Impacting behavioural aspects such as awareness building, sensitization, training

This will depend upon the budgetary provisions, priority and vision of the city.

5. **Procurement / Tendering / Specifications:** The items, goods and products required for ensuring inclusivity in each sector are to be included within the respective detailed project report with proper specification. The NIT should clearly mention the product specification in consultation with domain experts. All official communications need to follow accessibility standards.

6. **Phasing:** The proposals in the Inclusive City Plan need to be phased out in the form of an actionable agenda depending on priorities as expressed by the target groups at different stages, logistic and fund availability. The entire city may be divided into priority zones for ease in implementation.

The phasing should consider the following:

- Priorities of target group – this should be decided after conducting an exhaustive Citizen Perception Survey (CPS) and Focus Group Discussions (FGD)
- Priority sectors - current scores received by the city under each sector and each component within the sector
- Availability vs requirement of funds for implementing a proposal
- Availability vs requirement of resources including human resources for implementing a proposal

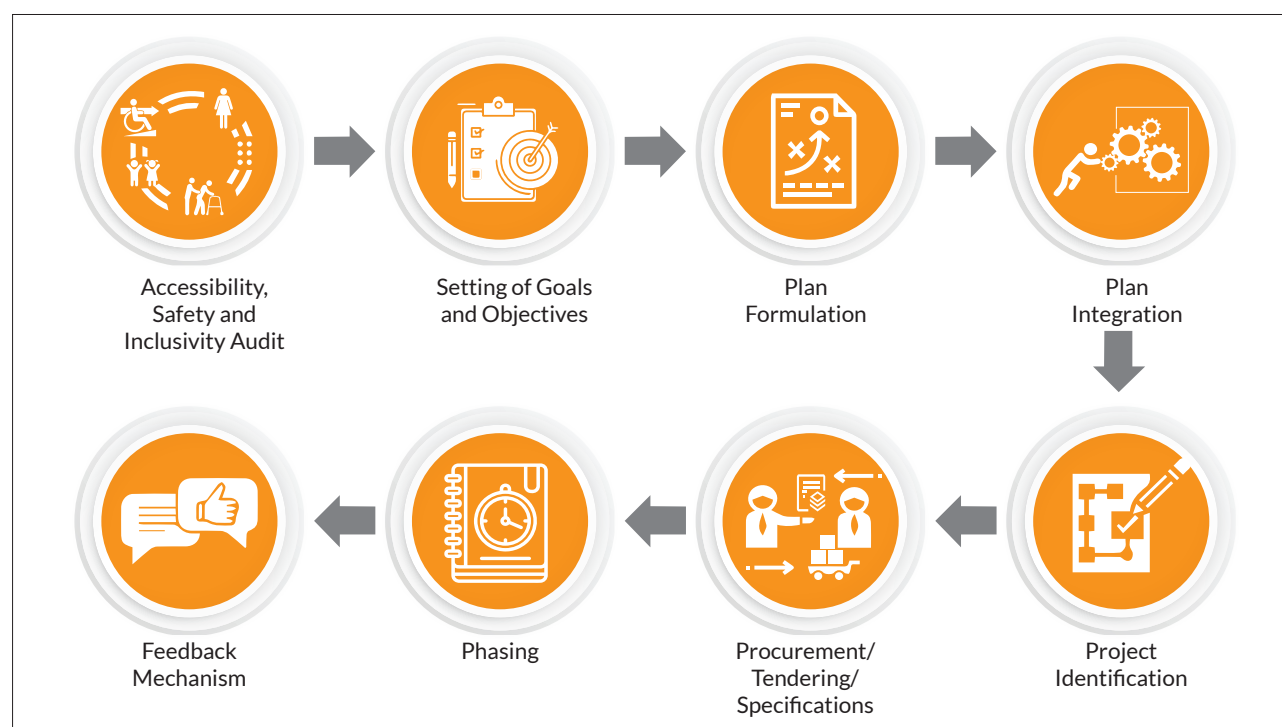
A priority matrix is proposed:

Immediate Action – Short term		
High priority Low current score Low resource requirement	High priority Low to medium current score Medium resource requirement	Low to medium priority Low to medium current score Low resource requirement
Mid Term		
High priority Low current score Medium to High resource requirement	Low to medium priority Low current score Medium to high resource requirement	
Long Term		
Low to medium priority Low current score High resource requirement		

7. **Feedback mechanism:** The project identification stage should be based on the principles of good governance, with robust citizen participation. This final stage should have a proper mechanism of review of the performance of various projects by multiple stakeholders including the target groups.

The process will work in a circular manner, wherein the feedback will support in the identification of the next phase of audit, initiating the entire cycle again.

Figure 3: Flowchart for Preparation of Inclusive City Plan (ICP)



2.6. Identification of Stakeholders

The stakeholders in the process of development of an Inclusive City will be as follows:

- **Target group:** Representatives from all 6 categories of vulnerable groups i.e. Locomotor Disability, Hearing Impairment, Visual Impairment, Senior Citizen, Autism and Children. While sampling, fair representation from all genders should be considered.

- **Urban Local Bodies:** Chairman / Executive Engineer of Municipal Corporation / Development Authority representative, Disability officer, and representatives from child and women welfare department.
- **Public Service Providers of select cities:** State bus corporation representative, station managers, bus operators, selected public offices like the corporation, employment exchange, school principals, hospital manager, housing development corporations, bank manager, historical monuments, auditoriums etc.
- **Private Service Providers:** Bus operators, para-transit agency, Taxi / Uber association, red car providers, hoteliers' association, tour operators, neighbourhood level bodies / societies / RWA, corporate office owners, private school principals, private nursing home and hospital manager, real estate developers, multiplexes, shopping malls, entertainment/theme parks
- **Civil Society Organisations-NGOs and OPD⁶ who work with Target group**
- **Experts and Professionals:** Town planners, medical professionals, IT professionals, architects and engineers, public health experts, psychologists, economists and social scientists

2.7. Inclusivity as an essential component in Government Schemes and City level Plans

Comprehensive development of urban areas should be planned by integrating the principles of safety, accessibility and inclusivity into the process of physical, institutional, social and economic development. There needs to be a strong complementarity between the Smart Cities Mission and Inclusive City Programme in achieving urban transformation. The Department of Empowerment of Persons with Disabilities (DEPwD) has launched Accessible India Campaign (Sugamya Bharat Abhiyan) as a nation-wide campaign for achieving universal accessibility for Persons with Disabilities (PwDs). The ULBs need to frame the vision for inclusion following the three important components of AIC – (i) Built Environment Accessibility, (ii) Transportation System Accessibility and (iii) Information and Communication Eco-System Accessibility.

The ULBs should design tailor-made projects and utilize a portion of funds available to them under missions like Swachh Bharat Mission (Urban Infrastructure), Deendayal Antyodaya Yojana (Livelihood) and Pradhan Mantri Awas Yojana – Urban (housing) to ensure sector level inclusivity.

The projects and proposals recommended under ICP need to be integrated with the existing Master Plan, Vision documents and all other available schemes, projects in the city. The integration should happen at the following levels:

- Visionary level – project selection, prioritization
- Implementation level – matching of project timelines
- Finance – should be a part of the budgetary allocation within these plans / projects/ schemes

2.8. Inclusive City Score – Star Rating

The Inclusive City Score attempts to evaluate the safety, accessibility and inclusivity of Indian Cities across various parameters included within **6 'Sectors'**. Within each sector there are '**Components**'. Within each component, there are measurable '**Indicators**'. In total there are **23 components** and **196 indicators** (Refer Figure 2 and section 2.3 INCLUSIVE CITY CHECKLIST).

⁶Organizations of persons with disabilities

This section describes the step-by-step methodology to calculate the **Inclusive City Score** for a city. The steps will include data transformation, cleaning and normalization followed by aggregation to calculate the summated score.

2.8.1 Data Transformation

The first step is data transformation to get parity between the indicators, which are positively correlated with the aspect of inclusivity / safety (as the case may be) in contrast with some other indicators which are negatively correlated with the same.

For example, availability of accessible buses is positively related to inclusivity whereas fear from speeding vehicles or stray dogs or criminal activities are negatively correlated with safety aspects. In order to avoid this, the language of the indicators was framed to ensure that greater value means a higher score and therefore better performance towards inclusivity. Necessary steps are also required for data cleaning along with eliminating redundant data/responses.

2.8.2 Types of responses:

The checklist as mentioned in section 2.3 comprises 196 number of indicators and the responses against those will be of one of the following four types:

Expressed as % - Falling within this category are ‘% of informal households having access to community water supply within 30m’ or ‘% of roadside drains which are covered’. The answer will be numeric like 60% or 85% for example.

- **Expressed as ratio:** Falling in this category will be ‘number of special schools per lakh population’. Here the answer will be like 1/1,00,000.
- **Expressed as binary:** In this category are included questions like ‘Is the website of the Urban Local Body accessible?’ Since in India, human assistance goes a long way in easing out many physical, psychological and systematic barriers, this particular rating scale may use terms like ‘accessible’, ‘partially accessible’ and ‘not accessible’ instead of just ‘yes’ and ‘no’ as otherwise used in normal binary responses.
- There might be many ways of representing partial accessibility like if a website or a signage has information on ‘accessible facilities’ and is readable with the help of one person it is considered ‘partially accessible’ but if there is no available information it will be considered ‘not accessible’. Similarly, if a public site can be made accessible by human assistance, then that may be also termed as ‘partially accessible’. For example, if a ramp does not have a slope suitable for a self-propelling wheelchair but one person can help to push up a wheelchair, it’s ‘partially accessible’ but if there is no ramp and 4 persons are required to lift a wheelchair then it’s ‘not accessible’.
- **Expressed qualitatively:** These will include indicators which can be subjectively judged like ‘reliability of public transport’, ‘quality of training and sensitization programmes’ which will have responses like ‘Very satisfied’, ‘Not much satisfied’ etc.

2.8.3 Converting the responses to numerical score

Since the 196 indicators will give different types of responses as mentioned above, these are not comparable in the raw form. It is critical to normalise the data before making any attempt to aggregate as the responses have different units.

The normalisation procedure ideally needs to be carried out to transform all the data into dimensionless numbers or numerical scores. The following ranges and conversion factors have been adopted (Table 1)

Table 1: Converting Responses to Numerical Scores

Range for percentage / ratio type responses	Qualitative responses- level of satisfaction	Binary responses	Numerical Score
> 90 % of desired value	Very satisfied	Accessible or yes	5
80 – 89 % of desired value	Quite satisfied	-	4
70 – 79 % of desired value	Moderately satisfied	Partially accessible or Partially	3
60 – 69 % of desired value	Not much satisfied	-	2
50 – 59 % of desired value	Just acceptable	-	1
<50%	Not acceptable	Not accessible or no	0

Following the above conversion factor, a city can get a **maximum score of 5 and minimum of 0** against each indicator. Table 2 illustrates the number of indicators and components in each sector.

Table 2: Maximum and Minimum Range of Values for all Sectors

Sectors *	No. of Components	No. of Indicators	Range of value for sectors	
			Minimum	Maximum
Infrastructure, amenities, services including water, electricity, sanitation & solid waste	6	67	0	$67*5 = 335$
Outdoor environment	4	24	0	$24*5 = 120$
Livelihood	3	16	0	$16*5 = 80$
Urban mobility & public transport	5	40	0	$40*5 = 200$
IT connectivity and digitalization and Citizen participation	3	25	0	$25*5 = 125$
Tourism and recreation	2	24	0	$24*5 = 120$
Total		196		980

**In absence of any evidence on the relative importance of the sectors and the components, all the sectors and the components are considered equally important.*

Considering the above maximum and minimum sector scores, the cumulative score of a city can be obtained. Based on the cumulative city score, the following star-rating is proposed. Considering the maximum achievable value of 980, the lower limits for each star are kept as 882 (90% of 980), 784(80% of 980), 686 (70% of 980) and 588 (60% of 980). Ranges are mentioned in the following table. The lowest score considered for a city to be eligible for any star rating is 490 (50% of the 980 i.e., maximum achievable value)

Table 3: Points and Star Rating

Cumulative Score received by city	Star marks
882– 980	*****
784 – 881	****
686 – 783	***
588– 685	**
490– 587	*

Since the launch of the “Accessible India Campaign”, the Government of India is aiming at transforming urban infrastructure to be more accessible and inclusive. The rating system will support the cities in the following ways:

- The inclusive city will not only be helpful in improving the credibility among its citizens, a higher score will definitely improve the cities liveability index and support in fulfilling the mandates of the “Rights of persons with disability act”
- The cities scoring more than 3 stars will be considered as the leaders on the journey of inclusion and accessibility and are acting as lighthouses for Inspirations
- For cities scoring less than 3 stars, the checklist will help to identify the niche areas for improvement.

2.9. Implementation, Financing, Monitoring and Review

The implementation stage should include a range of activities including preparation of Detailed Project Report (DPR), preparing fiscal plans, tendering and procurement, working out operation and maintenance strategies, and arranging for the involvement of different stakeholders. The **ULBs (elected/parastatal)** will take the lead in all the above-mentioned activities.

A. Advisory Forum or Accessibility and Inclusion -to be established at district level.

Constitution: The Forum will include the District Collector, Mayor / Municipality Chairpersons of all relevant ULBs, NGOs, local youths, technical experts (Urban planner, Accessibility expert, IT Professional), Consultants and Business Organizations/Corporates. There should be mandatory representation from each category of the vulnerable groups within the advisory forum.

Function: To advise the ULBs coming under its jurisdiction for matters related to planning and implementation of ICP, facilitate collaboration among various state-level and district level stakeholders and also carry out periodic monitoring & evaluation.

B. Inclusive City Cell - to be established within the Urban Local Body (ULBs)

Constitution: The cell will include technical support staff from different departments in the municipality (the exact composition may depend on the specific requirement of the city) along with one appointed full-time planner with knowledge or expertise in inclusive planning.

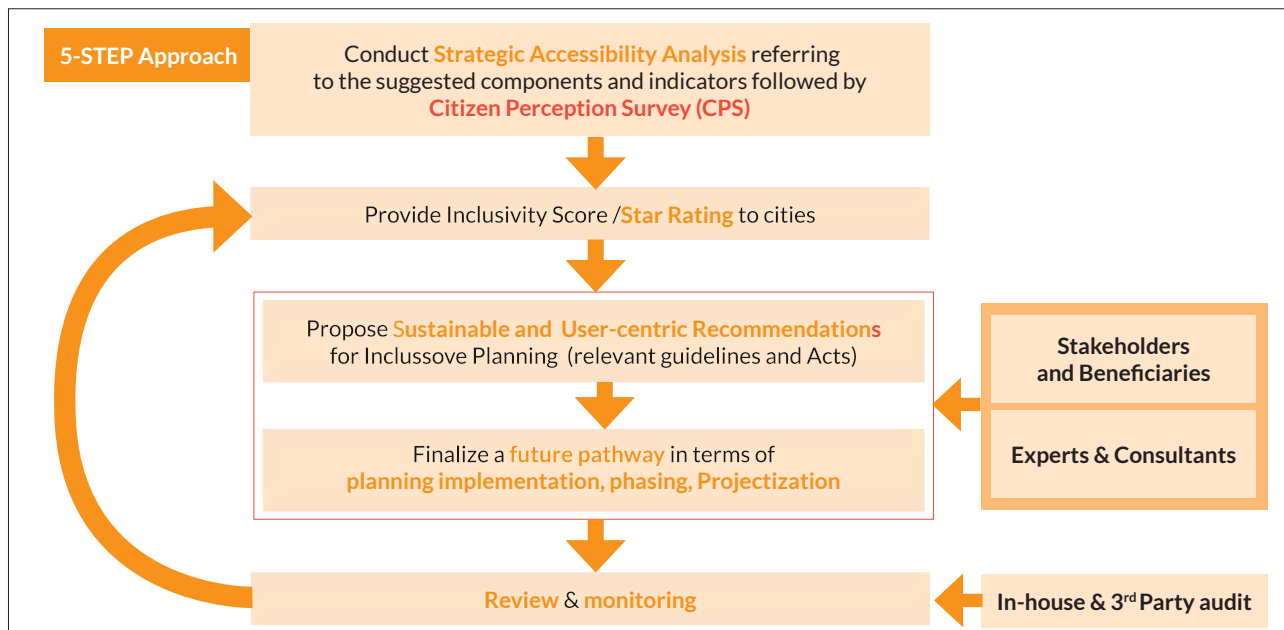
Function: The cell will have the following mandatory and obligatory functions:

- To ensure that inclusive planning is one of the priority areas of the ULB
- To coordinate amongst and assist relevant departments in the municipality for ensuring adherence to inclusive design principles and guidelines in all aspects of urban planning and development
- To assist relevant departments in the municipality in phasing and prioritizing projects related to inclusive development
- To review and monitor the progress of the relevant projects / aspects
- To organize necessary capacity building and sensitization programmes
- To coordinate with ward levels officials / organizations for ensuring smooth functioning
- To act as a single window for advisory support on technical, logistic and financial aspects for private agencies / organizations /individuals working towards this vision
- To recognize and coordinate with national and state level bodies working for this mission

Additionally, **specialized agencies and Consultants** are to be appointed in-charge of specific projects as may be recommended by the Inclusive City Advisory Forum.

Third party auditors are to be involved for periodic review and monitoring along with the internal audit team. The following steps are to be followed by the Urban Local Bodies for implementation:

Figure 4: Five Step Approach towards Inclusive City



2.9.1 Financing of Inclusive City Plan

The following guidelines are provided for Urban Local Bodies:

- Inclusion should be a crosscutting principle for all municipal activities.
- Safety, accessibility and inclusivity are to be integrated as mandatory aspects while planning and implementation of all development projects and programmes and corresponding DPR must include all associated costs.
- ULBs must have dedicated budgetary allocation for planning and implementing projects and programmes for the vulnerable groups.

2.9.2 Monitoring and Evaluation

Monitoring and Evaluation (M&E) is a continuous process through which any deviation from the performance of the city against the parameters set under the 6 sectors could be captured. It is important for cities to have knowledge about M&E techniques for effective evaluation of not only projects but also policies, plans, regulations, etc.

Periodic monitoring and evaluation will be primarily the responsibility of the Inclusive City Cell. It is essential that the projects and programmes as detailed out within the ICP are implemented in accordance with relevant guidelines and meet the desired standards to achieve the desired scores as indicated in the earlier sections.

Involvement of **3rd party auditors** along with **in-house auditors** is also required for intermediate and final review and the involvement of them should be mentioned during the preparation of ICP or any similar proposal.

The basic checklist may be developed into a tool for monitoring and review of the phase wise projects/schemes/ actionable agenda identified under each sector as part of ICP.

Table 4: Format for Monitoring and Review of Scores

Sector	Component	Indicator	Current score	Target (final)	Phase 1(time)		Phase 2(time)	
					Target	Achieved	Target	Achieved
1	1 (a)	Indicator (i)						
		Indicator (ii)						
							
		Indicator (x)						
	1 (n)							
2	2(a)							
...								
6	6(n)							

2.9.3 Validation Through CPS

This framework explained a set of sequential steps, starting from collecting primary and secondary data, scenario building, planning, projectization, implementation and monitoring. Finally, it is recommended that in order to measure the efficiency of the proposed strategies in ICP, **Citizen Perception Surveys (CPS)** be conducted to validate the citizens' experience pre and post the initiatives taken by the concerned ULB.

This study recommends **vetting the proposed strategies** in an ICP through the following steps.

1. Conduct a **first round of closed-group interview (CPS)** with representatives from all the 6 vulnerable groups and record the different types of (i) physical, (ii) psychological, (iii) socio-cultural and (iv) institutional barriers faced by them against all 6 identified sectors.
2. Implement the proposals as per the proposed Phasing in the Inclusive City Plan (ICP).
3. Conduct a **second round of closed-group interview (CPS)** with the same set of representatives and note the changes.
4. Adopt statistical techniques to compare the responses of **Closed Group 1** and **Closed Group 2**. The analysis will help to measure the effectiveness of the ICP proposals and decide on future actions.

Annexure

Inclusive City Checklist

Housing, Physical and Social Infrastructure

Accessible Housing	Response Type	Response
1. Accessible mass housing is connected to accessible mass transit and located in areas that are safe and close to services	Binary	
2. Mass housing units (public or private) are of adequate size to include universal design facilities as per Harmonized Guidelines with accessible infrastructures like electricity, water, sanitation and solid waste disposal.	Percentage	
3. Mass housings have accessible parking (both visitor and residents) as recommended in URDPFI and Harmonised Guidelines	Percentage	
4. Units (apart from accessible units) in mass housing have flexible layouts to accommodate user-specific requirements	Percentage	
5. Adequate number of accessible, clean, safe and affordable smart homes are integrated into relevant housing schemes.	Binary	
6. Accessible, safe, affordable and clean institutional homes/ retirement homes/ rehabilitation centres are available for all budget	Binary	
7. Accessible, safe, affordable and clean serviced apartments for independent living are available	Binary	
8. Accessible, clean, safe and affordable rental housing is available for the different vulnerable groups	Binary	
9. Specialized schemes and subsidies for house ownership are available for the vulnerable groups	Binary	
10. Special cell / designated official at ward level itself ensuring specialised services for the vulnerable groups are available	Binary	
Accessible Water Supply	Response Type	Response
1. Accessible formal residential units have individual water connections at home	Percentage	
2. Informal residential units are connected to universally designed community water sources with regular availability of water	Percentage	
3. The universally designed community source is located within 30 m from residential units and is reached by well-lit accessible pathways with proper signage for easy identification.	Percentage	
4. Public places have universally designed drinking water facilities per recommendations of Harmonized guidelines	Binary	
5. All the community water sources are equipped with adequate signage and slogans with a humanistic appeal to allow a separate queue for vulnerable groups	Percentage	
6. Incentives are given to mass housing projects (public/private) for using universally designed water supply and sanitary fixtures	Binary	

Accessible Sewerage, Sanitation And SWM	Response Type	Response
1. Accessible units within mass housing (public or private) have at least one of the toilets as accessible/transactional toilet	Percentage	
2. All informal residential units are connected to clean and accessible community toilets with accessible cubicles	Percentage	
3. The accessible toilets are located within 30 m from residential units and are reached by well-lit accessible pathways with proper signage for easy identification.	Binary	
4. Availability of universally accessible public toilet complex	Percentage	
5. Community/public toilets have universally designed fixtures including sanitizer dispensers, hand wash dispensers, and feedback buttons on cleanliness, accessibility and other facilities.	Percentage	
6. Attendants are available in all accessible public toilets.	Percentage	
7. Diaper changing room, baby feeding room, changing rooms are available in all public toilets.	Percentage	
8. Ward-level weekly cleaning drives/inspections are initiated, especially for accessible infrastructure.	Binary	
9. Formal residential units have access to door-to-door solid waste collection system / accessible garbage chutes at each level in case of apartments	Percentage	
10. Colour coded and universally accessible dustbins are provided at strategic location (easily accessible by all) in outdoor space	Binary	
11. Drains and service are covered with gratings as specified in standards, without interfering with the clear walking zone in the footpath.	Percentage	
Accessible Health	Response Type	Response
1. All levels of health care facilities are designed with universal access as per guidelines prescribed in URDPFI and Harmonized Guidelines	Percentage	
2. Accessible parking spaces are provided in all levels of healthcare centres as per guidelines prescribed in URDPFI and Harmonized Guidelines	Percentage	
3. Health care facilities are linked to accessible and affordable public transport.	Binary	
4. Regular training programmes for the healthcare worker are organized to embed sensitivity and empathy for vulnerable groups	Binary	
5. PHCCs (equipped to handle basic treatment, diagnosis and trauma care) are available at walking distance (within 1 km) and connected through accessible pathways to neighbourhoods and nearest transit points.	Percentage	
6. Special cell /unit /designated official equipped with sign language interpretation and local vernaculars are available at all levels of health care facilities	Percentage	
7. Regular health camps are organized at neighbourhood level for routine check-ups, early detection and doorstep treatment.	Binary	
8. Easy to read and clear information for all on healthcare in accessible formats in both electronic, as well as print media, is available. To support Information centres to be established at convenient locations at NH level	Binary	

Accessible Health	Response Type	Response
9. 24x7 services like doctor-on-call, ambulance-on-call are available for vulnerable populations including persons with disabilities.	Percentage	
10. 24x7 Tele-consultation, help-lines in different vernaculars as well as in sign language are available		
11. Availability and priority access of special services like home delivery of medicine and diagnostic facilities at an affordable rate	Percentage	
12. Chip-based systems for automatic health condition monitoring for vulnerable groups are available and controlled by nearby emergency health care service	Binary	
13. Integration of 'one nation one health card' provision	Binary	
14. Prioritization of persons with Disability UID card	Binary	
15. Tailor-made healthcare schemes are available for each category of the vulnerable group particularly catering to long-term medical treatment of people with disabilities	Binary	
16. Vaccination drives for children & nursing mothers are available	Binary	
17. Community emergency plans for natural and man-made disasters have special provisions for vulnerable groups	Binary	
18. Development of PHCC including inclusive provisions for play space and medicine shops (subsidized rates)	Binary	
19. User-friendly smart devices are available at a subsidized rate for personal health monitoring at home	Binary	
20. Local level volunteers are trained, encouraged and incentivized to support vulnerable groups for dissemination of healthcare-related information and extending support in an emergency situation including pandemics.	Binary	
Accessible Education	Response Type	Response
1. General schools are accessible as per the standards specified in Harmonized Guidelines	Percentage	
2. All educational institutions are linked to accessible and affordable public transport.	Binary	
3. Accessible special schools are available (in accordance with URDPFI recommendations)	Binary	
4. Disaggregated data on children with disabilities are available	Binary	
5. Accessible special night schools/ vocational training centres are available for training and education	Binary	
6. Compatible uses like old age homes and special education and training centres are linked	Binary	
7. General schools offer parallel inclusive education, online classes and evaluation with allied facilities like audio-visual assistance, right-pace teaching	Percentage	
8. Incentives/subsidies are provided to special students to procure internet package, laptops / smartphones	Binary	
9. Regular trainings are organized for teachers, staff and students in educational institutions for being empathetic to the needs of special children	Binary	

Accessible Community Facilities	Response Type	Response
1. Accessible banks and ATMs are available as per recommendations of Harmonized Guidelines and URDPFI Guidelines	Percentage	
2. Accessible banks and ATMs are linked to accessible and safe public transport	Binary	
3. Religious places with ancillary facilities are accessible with proper signage following the recommendations of Harmonized Guidelines and URDPFI Guidelines	Percentage	
4. Religious places are linked to accessible transport facilities.	Binary	
5. Shopping facilities, particularly those dealing with essential goods like medicine, milk, grocery, food items are accessible following the recommendations of Harmonized Guidelines and URDPFI Guidelines	Percentage	
6. Provisions like special hours/priority delivery options are available	Binary	
7. Shopping facilities are linked to accessible and safe public transport	Binary	
8. Provisions for accessible & safe Informal markets at convenient locations.	Binary	
9. Accessible convenient shopping is available within walking distance (less than 1 km)	Percentage	
10. Auditoriums, cinema halls and theatres need to have reservations and special provisions for all types of disabilities, elderly and children as per design standards specified in Harmonized Guidelines	Percentage	
11. Attendants are available at all important public places for assisting the vulnerable groups (as may be deemed fit by city authority in consultation with the public)	Binary	

Outdoor environment

Safety and Convenience of Pedestrian and SMV	Response Type	Response
1. Accessible footpaths on all city roads are available as per IRC recommendations and harmonised guidelines.	Percentage	
2. Safe, accessible, non-slip footpaths wide enough for wheelchairs are available and have dropped curbs to connect to road level as per recommendations of Harmonized Guidelines and IRC: 103-2012 Guidelines for Pedestrian Design Facilities.	Percentage	
3. Pedestrian crossings are available at appropriate places designed with safe and inclusive provisions for persons with different disabilities, with nonslip markings, visual & audio cues, adequate crossing times as per Harmonized Guidelines and IRC: 103-2012 Guidelines for Pedestrian Design Facilities.	Percentage	
4. Traffic signs and intersections are available at convenient and visible locations as per IRC recommendations	Percentage	
5. Service lanes are available for slow-moving vehicles as per IRC recommendations	Percentage	
6. Availability of separate cycle tracks on busy urban roads (as per IRC recommendations) with an affordable bike hiring facility and provisions of movement of assistive mobility devices.	Percentage	
7. Wheelchair charging stations are available at convenient locations	Binary	
8. Footpaths are child friendly with interactive and playful design	Qualitative	
9. Grade separator pedestrian crossing including subways and overhead bridges are accessible as per Harmonized Guidelines	Binary	
Accessible Amenities and Facilities	Response Type	Response
1. Accessible, safe and clean amenities including toilets, drinking water and seating, shaded standing areas for weather protection are available in important public areas (as may be deemed fit by city authority in consultation with the public)	Binary	
2. Special provisions like dedicated accessible counter/help desks/ticket windows/vending machines are available for aged and disabled at appropriate and popular public areas (as may be deemed fit by city authority in consultation with the public)	Binary	
3. Public places are clean, well maintained and aesthetically pleasing	Qualitative	
4. Public places are free from obnoxious smell and solid waste dumping with conveniently located litter bins	Qualitative	
Accessible Information & Easy Way-Finding	Response Type	Response
1. Public places have adequate way-finding information through Tactile, Visual and Auditory means and help-line numbers	Percentage	
2. Street signage are available as per design recommended in IRC: 67-2012 Code of Practice for Road Signs and Harmonised Guidelines	Percentage	
3. Illumination in streets and public areas follow the BIS 1981	Percentage	
4. Accessible Wi-Fi zones with seating facilities are available in important public areas (as may be deemed fit by city authority in consultation with public/ within the capacity of the concerned authorities)	Binary	
5. Facility of charging assistive devices are available within Wi-Fi zones.	Binary	

Safety, Security And Reliability	Response Type	Response
1. Regular police patrolling and CCTV installation at underpasses, bus stops, metro rail stations	Percentage	
2. Well-lit underpasses and walkways with some vendors and other activities are available to ensure safety to women and vulnerable groups.	Percentage	
3. Regular police patrolling and CCTV installation at important public areas are available (as may be deemed fit by city authority in consultation with the public).	Binary	
4. 24 X 7 helpline numbers (in accessible formats) along with helpdesks for vulnerable groups are available at important public areas (as may be deemed fit by ULB in consultation with the public)	Binary	
5. Grievance and assault reporting officers are available who are sensitive to the needs of the vulnerable groups	Binary	
6. Regular initiatives are taken by ULB for keeping streets and public places free from stray animals	Binary	

Livelihood

Employment Opportunities for Vulnerable Groups	Response Type	Response
1. A range of flexible options (formal and informal) are available for employing people from all vulnerable groups	Binary	
2. Self-employment options for vulnerable groups are promoted through incentivization and reservation (advertised through various modes)	Binary	
3. Schemes for vulnerable groups to avail financial help for business/ self-employment are available and advertised through various modes	Binary	
4. Accessible websites, as well as Accessible one-stop information centre (in each ward), are available to appraise people on available employment opportunities and schemes	Binary	
Accessible Working Environment And Policies	Response Type	Response
1. All government offices/ institutions / factories have an accessible and conducive work environment as per standards recommended by Harmonized Guidelines and URDPFI Guidelines.	Percentage	
2. Private offices/ institutions / factories have an accessible and conducive work environment as per standards recommended by Harmonized Guidelines and URDPFI Guidelines.	Binary	
3. Accessible and safe work environment exists for involvement of vulnerable groups in the informal sector like street vendors, hawkers as per URDPFI Guidelines.	Binary	
4. Accessible and safe special transport services (public / private) are available for vulnerable groups during office hours at subsidized rates	Binary	
5. Child care facilities / crèche are available at offices for parents with kids	Binary	
6. All public and private offices/ institutions / factories have 'vulnerable-group friendly policy' which includes on-job training, opportunities for career advancement, job security, pay protection and other benefits sensitization and awareness programmes to remove social stigma	Binary	
7. All public and private offices/ institutions / factories have reasonable accommodation policy with involvement of specialised consultant	Binary	
8. All public and private offices / institutions/ factories have provision of flexible working mode like WFH and flexible working hours with special T&C for vulnerable groups	Binary	
Training & Capacity Building	Response Type	Response
1. Job-centric training programmes are available for vulnerable groups (on-line and off-line) and through FM channel	Binary	
2. 'School-to-Work Transition Programmes' are available for vulnerable groups in special schools	Binary	
3. Schemes / incentives are available to support private sector employers for hiring, training and integrating vulnerable groups into their organization / institution	Binary	
4. Accessible and affordable institutions running vocational/skill courses for PwDs are available	Binary	

Urban mobility and public transport

Accessible Urban Bus Services	Response Type	Response
1. The city has an Inclusive City Mobility Plan which proposes to connect all areas and services by accessible bus service ensuring adequate frequency	Binary	
2. Frequent bus services are available including night-time and weekends services based on ground data collected on travel pattern	Binary	
3. Provisions for hassle-free boarding and alighting, comfortable travel, getting information, on-board comfort and ticket purchasing (following the recommendations of Harmonized Guidelines, Urban Bus Specification, 2008, 2018 and IRC: 124-2017 Bus Rapid Transit (BRT) Design Guidelines for Indian Cities)	Percentage	
4. Accessible and conveniently located terminal and stops, with easy transfer from other modes, clean, well-marked, well maintained and well lit, for hassle-free ticket purchasing, boarding and alighting, comfortable waiting, with accessible, legible and reliable information on vehicles, routes, frequency (following the recommendations of Harmonized Guidelines, IRC: 124-2017 Bus Rapid Transit (BRT) Design Guidelines for Indian Cities)	Percentage	
5. Bus services are affordable to all users (perception-based assessment) and with accessible (digital) payments	Qualitative	
6. Bus services are safe and reliable to all users (perception-based assessment)	Qualitative	
7. Accessible information on general and specialized services and facilities are available at all terminals/stops, through accessible websites, help-line numbers	Binary	
8. Drivers are trained to stop at designated halts and beside the curb to facilitate boarding and wait for passengers to be seated before driving off and are penalized for acting otherwise	Qualitative	
9. Human assistance is available at terminals, at major stops, within all vehicles	Percentage	
10. Integration of a mechanism for crowd management in terminals/stops is ensured by deploying a group of trained volunteers/ staff for generating confidence and a sense of security amongst vulnerable groups	Binary	
11. Feedback / complaint register system are available through accessible means at terminal /stops /within vehicles /accessible web-site / help-line number	Binary	
Accessible Railways / Metro Rail	Response Type	Response
1. Land use plan / master plan of the city is integrated with the railway/ metro lines so that major areas are within coverage.	Binary	
2. Provisions of hassle-free boarding and alighting, comfortable travel, getting on-board information on destination arrival, (following recommendations of Harmonized Guidelines, Manual for standards and specifications for railway stations, 2009).	Binary	
3. Accessible intermediate stations and terminals are with easy transfer from other modes, ticket purchasing, hassle-free boarding and alighting, comfortable waiting, easy and reliable information on trains, routes, frequency (following recommendations of Harmonized Guidelines, Manual for standards and specifications for railway stations, 2009)	Percentage	
4. Train / metro services are frequent including night-time and weekends services based on ground data collected on travel pattern	Binary	

5. Train / metro services are affordable to all users (perception-based assessment) and with accessible (digital) payments	Qualitative	
6. Train / metro services are perceived as safe and reliable to all users (perception-based assessment)	Qualitative	
7. Accessible information on general and specialized services and facilities are available at all terminals / stops, through accessible web-sites and accessible help-line numbers	Binary	
8. Accessible information on train availability, arrival time, platform number, time required to reach there, halting time, exact location of accessible (barrier free) coach through visual and auditory means	Binary	
9. Human assistance is available in terminals, stations, within special coaches	Percentage	
10. Integration of a mechanism for crowd management in terminals / stops is ensured by deploying a group of trained volunteers/ staff for generating confidence and a sense of security amongst vulnerable groups	Binary	
11. Feedback / complaint register systems are available at terminal /station / within special coaches/ accessible web-site / help-line number	Binary	
Accessible Paratransit (Auto/Toto/Uber)	Response Type	Response
1. Inclusive City Mobility Plan has defined routes for maximum end-point connectivity based on ground data on travel pattern and modal choices	Binary	
2. Para-transit stands are accessible, conveniently located, safe, with adequate signage for easy identification of vehicles for different destinations	Percentage	
3. Accessible options of vehicles which can accommodate wheelchairs are available	Percentage	
4. Presence of grab bars for anchoring oneself safely within vehicle	Percentage	
5. Paratransit services are affordable to all users (perception-based assessment)	Qualitative	
6. Para-transit services are perceived as safe and reliable to all (perception-based assessment)	Qualitative	
7. Accessible city-apps and help-line numbers are available for pre/ instant booking of vehicles	Binary	
8. Drivers are trained to stop at designated stops to facilitate boarding and waiting, for passengers to be seated before driving off and are penalized for acting otherwise	Qualitative	
9. Feedback / complaint register system is available through accessible website / help-line number	Binary	
Accessible Hired Cars / Taxis / Special Services	Response Type	Response
1. Drivers are trained to be sensitive to the needs of all passengers and are penalized for acting otherwise	Binary	
2. Accessible vehicles which can accommodate wheelchairs are available pan-city	Percentage	
3. Presence of grab bars for anchoring oneself safely within vehicle	Percentage	
4. Hired Cars / Taxis / Special services are affordable to all (perception-based assessment)	Qualitative	
5. Hired Cars / Taxis / Special services are safe and reliable to all (perception-based assessment)	Qualitative	
6. Accessible city-apps and help-line numbers are available for pre/ instant booking of vehicles	Binary	

Personal Vehicles And Parking	Response Type	Response
1. Accessible parking and drop off areas are available in important public areas (as may be deemed fit by city authority in consultation with the public)	Binary	
2. Special licenses are issued by city RTO for the vulnerable group to drive modified vehicles	Binary	
3. Sensitization attempts are taken by ULB in association with corporates and NGOs to sensitize drivers on road towards persons from vulnerable groups who are self-driving	Binary	

IT connectivity, Digitalization, Governance and Citizen Participation

Internet Connectivity And Digitization	Response Type	Response
1. Information on city websites related to essential urban services and amenities are accessible and user-friendly following the recommendations of Guidelines for Indian Government Websites along with an integrated feedback mechanism	Binary	
2. Website of the ULB has a mobile app version and it connects to accessible facilities and services offered by allied agencies	Binary	
3. Information on availability of specific accessible places/services/products in a city is available through various modes (print media, electronic media, accessible websites, one-stop NH information centres / mobile vans/temporary camps)	Binary	
4. A list of Government and Non-government organizations working for vulnerable groups is made and the information is available on city's website in accessible format	Binary	
5. Simple, familiar words, in short, straightforward sentences in legible font are used in print communication as per Harmonized Guidelines	Qualitative	
6. Provision for giving instructions slowly and clearly and telling callers how to repeat the message at any time in telephone answering services.	Qualitative	
7. Accessible wi-fi zones with free connection are available in important public areas (as may be deemed fit by city authority in consultation with the public)	Binary	
8. Affordable internet packages are made available for vulnerable groups as part of CSR	Binary	
Inclusive Governance	Response Type	Response
1. City has an Inclusive City Plan based on access audits, real-time data on vulnerable groups and Citizen Perception Survey	Binary	
2. Data on the demographic and socio-economic profile of the vulnerable group is available	Binary	
3. Incorporation of Universal design standards and related development control norms as per URDPFI Guidelines, IRC, Harmonized Guidelines into the City Vision Plan, / CDP / Master Plan have been done	Binary	
4. Training and sensitization programmes for all public and private employees towards specific needs of the vulnerable groups are regularly organized by respective organizations/ institutions associated with essential services and urban amenities	Binary	
5. Permanent/contractual staff with expertise in disability studies are engaged by public and private organizations associated with general and specific essential services for designing websites and other communication portals	Binary	
6. Multi stakeholder collaborations involving different private and public agencies, non-profit organizations, individuals, research institutes are promoted amongst essential service providers for creating inclusive places and facilities in the city	Binary	
7. ULB has a special cell / department / official looking after the planning, implementation, financing and monitoring of all activities related to creating inclusive places and facilities in the city.	Binary	
8. Budgetary allocation of the ULB has been considered for planning and developing new/retrofitted projects for creating inclusive places and facilities in the city and also giving incentives/ subsidies / financial support to private sector organizations / individuals for the same.	Binary	
9. Adoption of inclusive schemes/programmes for the vulnerable groups at city level	Binary	

Inclusive Governance	Response Type	Response
10. UID cards are issued to all People with Disability	Percentage	
11. Special provisions for vulnerable groups at election booths are available	Percentage	
Participation of Vulnerable Groups	Response Type	Response
1. Citizen feedback surveys which are conducted by public / private organizations / institutions associated with urban planning and development / essential services have accessible options for participation by vulnerable groups (minimum 15 % of respondents)	Binary	
2. Accessible online grievance redressal mechanisms are available	Binary	
3. Week-long awareness generation programme /conferences/ workshops/road-shows/exhibitions are organized on special occasions for sensitizing people towards the issue of inclusivity	Binary	
4. City-specific benchmark, access audit manuals and guidelines are prepared for each sector by involving all stakeholders in consultation with representatives from the vulnerable group.	Binary	
5. Incentives / rebates are provided to manufacturers of universal products and providers of universal services	Binary	
6. People from vulnerable groups are encouraged on special days/ occasions by giving recognition for their contribution in society.	Binary	

Tourism and recreation

Accessible, Safe & Affordable Tourism	Response Type	Response
1. Accessible, safe and inclusive out-station tourist destination/ circuits are advertised through multiple modes by the private tour operators in the city	Binary	
2. City tourist destinations are safe and accessible following the w recommendations of Harmonized Guidelines and URDPFI along with sensitive guides adequately trained to deal with the problems of the vulnerable groups	Binary	
3. Accessible and safe tourist destinations are connected by accessible, safe, and inclusive transport	Binary	
4. Hotels of all categories are available which have at least 15% of their rooms accessible and 100% of common facilities like restaurant, café, pool, lawn, banquet accessible as per the recommendations of Harmonized Guidelines	Binary	
5. Single-point accessible tourist help desks with all information are available at convenient locations having trained staff to communicate with vulnerable groups	Binary	
6. The city tourism website is accessible to all	Binary	
7. There is scope for satisfactory virtual tours through the application of Augmented Reality	Qualitative	
8. Confidence building attempts are made amongst vulnerable groups and their family members online and through mobile camps / NH level centres / private operators to make them aware of accessible facilities encouraging them to travel for leisure	Binary	
Accessible, Safe Recreation For All	Response Type	Response
1. Accessible and safe recreational, cultural and leisure facilities are available as per the recommendations of Harmonized Guidelines and URDPFI	Percentage	
2. These facilities are connected by safe, affordable and accessible public transport	Binary	
3. Accessible and safe shopping (indoor and outdoor) are available as per recommendations of Harmonized Guidelines and URDPFI	Percentage	
4. These facilities are connected by safe, affordable and accessible public transport	Binary	
5. Accessible and safe sports facilities, parks and playgrounds are available as per the recommendations of Harmonized Guidelines and URDPFI	Percentage	
6. These facilities are connected by safe, affordable and accessible public transport	Binary	
7. Accessible and safe parks/ playgrounds / multi-sensory parks are available	Binary	
8. Accessible and safe para-sports and para stadiums are available	Binary	
9. Accessible and safe library/theatre/cinema/ community hub offering activities for vulnerable groups are available as per recommendations of Harmonized Guidelines and URDPFI	Percentage	
10. These facilities are connected by safe, affordable and accessible public transport	Binary	
11. A wide variety of activities are offered to appeal to diverse populations of vulnerable groups based on city profile	Qualitative	

Accessible, Safe Recreation For All	Response Type	Response
12. Special FM channels are available for vulnerable groups with interactive programmes	Binary	
13. User-friendly Apps are available to help persons with disabilities to participate in different activities and events of the city by providing live visual and sign language interpretation during events and information on accessibility facilities on the arena	Binary	
14. Adequate and updated information is available about city level activities and events through different modes, including details about accessibility of facilities and transportation options for vulnerable groups.	Binary	
15. Integration of reliable mechanisms for crowd management through volunteers and/or architectural measures like separate entry/exit and queuing areas etc.	Binary	
16. Consistent outreach for inclusion of vulnerable people at risk of social isolation is carried out	Binary	

[illegible]

[illegible]



UK Government

The Foreign, Commonwealth & Development Office pursues the national interests of the UK and projects the UK as a force for good in the world. FCDO promotes the interests of British citizens, safeguards the UK's security, defends the UK's values, works to reduce poverty and tackle global challenges with international partners.



Indian Institute of
Technology Kharagpur

Indian Institute of Technology Kharagpur is a public technical and research university established by the government of India in Kharagpur, West Bengal, India. Established in 1951, the institute is the first of the IITs to be established and is recognised as an Institute of National Importance producing global leaders in science, technology and management. IIT Kharagpur, being a hub of knowledge creation that prioritises the frontier areas of national and global importance aligns all its activities to serve national interest and seeks to provide broad-based education, helping students hone their professional skills and acquire the best-in-class capabilities in their respective disciplines while imbining a spirit of entrepreneurship and innovation.



National Institute of Urban Affairs


Established in 1976, National Institute of Urban Affairs (NIUA) was tasked to bridge the gap between research and practice on issues related to urbanization, and suggest ways and mechanisms to address these urban challenges of the country. For more than 40 years now, NIUA has been the vanguard for contributing to, and at times, building the urban narrative for a fast-evolving urban India. The Institution has been actively working towards bringing forth key areas of concern for urban India in order to build the urban discourse at various scales.

It has utilized its competencies in research, knowledge management, policy advocacy and capacity building to address the urban challenges, and continuously strive to develop sustainable, inclusive, and productive urban ecosystems in India. It has emerged as a thought leader and knowledge hub for urban development in India, and is sought out by both Indian and International organizations for collaborations and partnerships for India's urban transforming journey. NIUA is committed towards aligning its efforts towards achieving the Sustainable Development Goals (SDGs) through all its initiatives and programs.

Empower through inclusivity

#BASIIC_NIUA
#inclusionmatters
#AccessibleCities
#InclusiveCities
#CitiesforAll
#EmpowerthroughInclusivity

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