



# Safety and Mobility Challenges of People with Disability in Mekelle City: Towards Inclusive Urban Transport

A Policy Brief calling for Disability Inclusive Urban Transport

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# 1. Policy overview

People with disabilities have the right to inclusive, integrated and accessible urban infrastructure and transport services that meet their needs. These disadvantaged groups usually have to deal with various social, economic, and political challenges and inequalities. Stigma, discrimination, barriers to basic services, unequal opportunity to employment, and exclusion from decision making are some of the most common problems people with disabilities face. When people with disabilities are excluded from accessing transport, it can lead to low self-esteem, inability to access education and work, poverty, health problems, and lower quality of life. The negative outcomes of these exclusions affect people with disabilities, their families and the community on both national and global levels.

Globally, developed countries have been making encouraging efforts to address the challenges people with disabilities face with accessing transport, including establishing policies and strategies. These are still emerging in low-income countries (LICs), but are encouraging.

This brief has been produced to inform policy makers and provide recommendations based on the findings of this study on safety and mobility challenges of people with disabilities in Mekelle city. The study consists of a review of both scientific and grey literature and primary data collection. Quantitative data was collected through digital questionnaire-based face-to-face interviews and on-site assessments of transport infrastructure, public buildings, transport services and stops. Qualitative data was also collected using in-depth interviews of key-informants, such as disability associations and government institutions, interviews with people with disabilities, and focus group discussions. Research findings were discussed among the various stakeholders in workshops and consultative meetings. As a result, finding reports and recommendations to improve access to transport for people with disabilities in Mekelle city have been produced.

## 1.1. Key findings

- Inclusive proclamations, directives, and guidelines are available for buildings, but their implementation or enforcement was poor, making most public buildings inaccessible for people with disabilities.
- Unlike buildings, there are no directives and guidelines in Mekelle city and Tigray region for inclusive urban transport infrastructure to support access to transport for people with disabilities.
- Road sidewalks and building entrance/exit ramps were unsuitable for people with disabilities in the city. Sidewalks were narrow and full of arbitrarily placed static obstacles which, encroached on pathways. They were also poorly managed, and inaccessible to wheelchair users.
- The walkability of streets in Mekelle city was below average. The availability of infrastructure for people with disabilities were limited, unsafe and not in usable conditions.
- All of the public transport vehicles operating in the city were inaccessible to wheelchair users and do not have any way to aid people with vision impairment.
- Planning, design, and implementation of the infrastructure and services in the city were carried out without proper consultation with people with disabilities.
- Available policies, directives, and implementation guidelines were not clearly communicated by government bodies resulting in confusion for transport professionals, people with disabilities, and other community groups.
- Awareness of inclusive transport for people with disabilities was low among government bodies, architects and engineers, and public transport providers.





## 1.2. Key recommendations

- The main challenges in enforcing building proclamation come from poor law enforcement, inadequate professional ethics, and a lack of awareness about the impact of inaccessible design and construction on people with disabilities. To improve compliance with building proclamations, it is essential to implement continuous awareness programmes together with stronger law enforcement, focusing on the safety and accessibility needs of people with disabilities.
- Developing inclusive directives and guidelines for people with disabilities, along with ongoing awareness initiatives, will help to realise accessible transport infrastructure, design and construction. This approach will also improve the management of facilities, improve street walkability and ensure the safety and mobility of all pedestrians. This will contribute to meeting the accessibility requirements of the United Nations Convention on the Rights of Persons with Disabilities.
- Current policies, directives, and implementation guidelines are not clearly communicated across all levels of government. To reduce confusion among stakeholder and the wider community, closer collaboration with disability associations, architects and engineers, as well as increased use of conventional and social media, is needed.
- Consultation with people with disabilities during planning, design and implementation of public urban transport infrastructure is weak. Including disadvantaged groups through their associations or representatives will help to incorporate their needs and gradually remove the barriers that limit their access.
- Strong collaboration among government bodies, disability associations, architects and engineers, contractors, public transport providers, and other relevant stakeholders should be encouraged to create a more inclusive urban environment and transport services.



## 2. Policy context

People with disabilities have the right to inclusive, integrated and accessible urban infrastructure and services that meet their needs. This requires the removal or reduction of barriers that limit the transport opportunities for people with disabilities and vulnerable groups. When barriers are removed, people have equal opportunities to education, work and employment, healthcare services and, decision making.

### 2.1. The overall policy landscape

Globally, the United Nations and its member states have been making encouraging efforts to address the challenges of people with disabilities and realise the “no one is left behind” motto. These efforts are well established on the policies and strategies of developed countries, but are still emerging, though encouraging, in LICs.

As a UN member state, Ethiopia has been adopting and implementing a number of conventions, policies, and laws relating to people with disabilities. This can be clearly seen in the nation’s 1995 Constitution Article 41(5), stating the government’s responsibility for the “provision of necessary rehabilitation and support services” for people with disabilities. It was also included in the Proclamation No. 568/2008 aimed at protecting the rights of employment and eliminating any discriminatory laws, practice, custom, and attitude that limit equal opportunities of people with disabilities. Ethiopia ratified the United Nations Convention on the Rights of Persons with Disability (UN CRPD) with a Proclamation No. 676/2010 and included it as a cross-cutting issue under the “Social Welfare and Labour Affairs” in its first and second Growth and Transformation Plan (GTP). The Ministry of Labour and Social Affairs also prepared a National Plan of Action of Persons with Disabilities (2012-2021) based on the UN CRPD. The plan was prepared with a vision of creating a fully inclusive society regardless of gender or kind of disability, including parents and family members, to enjoy the same rights and participate in the same civil, political, economic, social and cultural spheres. It set 13 objectives including “promoting and raising awareness of the non-disable society” and “support accessible living and transport in the community”. It recognized the need and rights of people with disabilities and the challenges they face because of the inaccessibility of the built environment in urban areas.

Various activities were mentioned to have been carried out in the decade-long implementation period, including the establishment of standards for accessible building design in the country; awareness creation works to architects, building contractors, government officials and the general public; enabling hearing-impaired people to operate motor vehicles, making public transport vehicles clearly indicate in writing their destination, among others. However, the plan did not adequately address the efforts to make the urban transportation system inclusive, and urban streets walkable and accessible for people with disabilities.

In Ethiopia, despite adopting many international treaties and conventions and ratifying them as part of its laws and included in its policies, the issue of an inclusive urban transport system is far from realised. The attitude towards inclusive development is still low. Infrastructure and services remain full of barriers for disadvantaged groups. The construction and transport sectors are good indicators of the current challenges for people with disabilities. Despite the ratification of Building Proclamation No. 624/2009 aiming to provide accessibility in the design and construction of any building to ensure suitability for physically impaired people, public buildings remain inaccessible for many vulnerable groups. Urban planners, designers and administrators give higher priority to vehicular traffic and the needs of pedestrians in general, meaning the needs of people with disabilities remain neglected. Public transport and facilities do not have adequate room for people with disabilities. Regional states and cities in the country are far from realising the disability inclusive development.

### 2.2. How the HVT Programme fits

The research project is in line with the HVT programme themes of “policy regulation” and sub-themes “inclusion, gender and road safety” and Sustainable Development Goals (SDGs) of the transport sector. The research outputs are expected to contribute to bringing about urban transport policy, planning, and design changes in Ethiopia and other LICs to support people with disabilities and other vulnerable groups in society.

### 2.3. Key policy actors

In the study area, Mekelle city, 423 people with disabilities answered a questionnaire through a face-to-face interview. An assessment on the ground of the existing condition of the building and transport infrastructure and services also took place. Fifteen in-depth interviews and three focus group discussions were carried out. A consultative meeting was also conducted with stakeholders in which the findings of the study were discussed and possible policy recommendations were suggested. Stakeholders were engaged at the beginning of the project in the inception workshop and at the end in the validation workshop. Key informant and workshop



participants in the project were mainly from government and private institutions, practitioners, higher education, NGOs, people with disabilities associations, and the wider community. Representatives of the following institutions/organisations, at regional/ city level, were interviewed and were involved in the focus group discussions and workshops:

- Mekelle City Municipality/Administration
- Mekelle City Infrastructure Office
- Mekelle City Transport Administration
- Mekelle City Zone Social Affairs
- Tigray Bureau of Social Affairs
- Tigray Bureau of Urban Development and Construction
- Tigray Bureau of Transport
- Tigray Disabled Veteran Association (TDVA)
- Bright Future Local NGO and Advocacy
- Tigray Disabled Association
- Tigray Blind Association
- Tigray Disabled Women Association
- Tigray Architects and Engineers Association
- Tigray Contractors Association
- Mekelle University, Ethiopian Institute of Technology-Mekelle
- Mekelle City Public Transport Union
- SUR Construction
- Hareg Tegar Media (HTM)
- Practitioners

Figure 1: Stakeholder engagement during the project work





### 3. Informing policy

Involving people with disabilities in the planning, design, and implementation of public infrastructure and transport services supports their independence and enhances their quality of life. It also benefits their families, the community, and the nation as a whole. To inform this policy brief, this study has assessed:

- The inclusiveness of existing building and transport-related policies, proclamations, regulations, directives and guidelines people with disabilities;
- The impact of current urban transport infrastructure on the livelihoods of people with disabilities;
- The suitability and accessibility of public infrastructure, including buildings, roads, and transport services, for people with disabilities;
- The walkability, safety and accessibility of urban streets for people with disabilities and pedestrians in general;
- The extent to which people with disabilities are consulted in the planning, design and implementation of public infrastructure and services.

#### 3.1. What we did

The project began by briefing the main stakeholders of Mekelle city, followed by an inception workshop aimed at introducing stakeholders to the project objectives and letting them know how they could support the research work. Participants were able to forward their views, concerns, and suggestions about the existing situation of the built environment and transport service in Mekelle city, the project and its expected outcomes.

A mixed research design approach was used to collect and analyse data in this study. Quantitative data from 423 people with disabilities was collected using digital questionnaire-based face-to-face interviews. The respondents were from all the seven sub-cities of Mekelle city: Adi-haki (45), Ayder (54), Hadnet (91), Hawelti (54), Kedamay Weyane (91), Quiha (40), and Semen sub-city (48). The scope of the project focused on solving the problems of physical disabilities and people with visual impairments. People with learning disabilities and mental health conditions were not included in this research.

Qualitative data was collected from in-depth semi-structured interviews with 15 key informants and, three focus group discussions, with between six and nine participants in each group. Based on the unique lived experiences of people with disabilities obtained during the quantitative survey, open-ended questions were prepared and five respondents were contacted and interviewed in-depth to share their experiences with the urban built environment and transport system in Mekelle city. The key informant interviews and focus group discussion participants were from government offices, higher education institution, people with disabilities associations, local NGOs and advocacy groups, public transport unions, and practitioners. The key informant interviews and focus group discussions focused on participants' understanding of Mekelle city's existing transport infrastructure and services regarding disability inclusion. The discussions aimed to identify safety and mobility barriers and explore participants' experiences in consulting people with disabilities during the planning, design and implementation of urban transport infrastructure and services. The main points of discussion included - the coordination of stakeholders, availability and implementation of existing policies and regulations for the safety and mobility of people with disabilities, and measure to be taken to improve the inclusiveness of transport systems.

In addition to interviews, focus group discussions, and other consultative meetings, assessments on the ground took place to look at the existing public infrastructure and transport services to identify the availability and evaluate the safety and accessibility of the facilities and systems for people with disabilities. A total of 68 km asphalt roads, 10 km cobblestone roads, and 44 public buildings were assessed. Total width of streets and sidewalks, sidewalk space utilization, street crossing condition, walkway surface condition, signage and information, taxi and bus station facility conditions, building entrance and vertical transport conditions were evaluated for their suitability for people with disabilities. Overhead obstructions below 2.3 m high were also recorded at sidewalks during the assessment. Walkability of the main streets in the city were evaluated. To identify the proper utilization of street sidewalks, type and placement of sidewalk obstructions were also recorded. These points helped to evaluate the safety and accessibility of the existing infrastructure in Mekelle city whether the facilities are direct and/or easy to access, demand minimum effort to be used by all community groups, including people with disabilities, and allow sufficient space for users, especially wheelchair users.

Evaluation of public buildings consisted of assessing the physical environment, both the entrance and interior, and their accessibility for people with disabilities. This survey encompassed various types of institutions including hotels, commercial buildings, educational centres, health centres, and government offices.





The project was finally concluded with a validation workshop. The participants of this workshop were from government offices, local NGOs, disability associations, practitioners, media and included participants from the inception workshop and local media. The main research findings were presented in the workshop. The participants of the workshop then reflected their views on the findings. The stakeholders echoed the need for disability inclusive urban transport infrastructure and improvements on awareness creation for all actors in consultation with people with disabilities during policy formulation, planning, design and implementation of urban transport infrastructure.

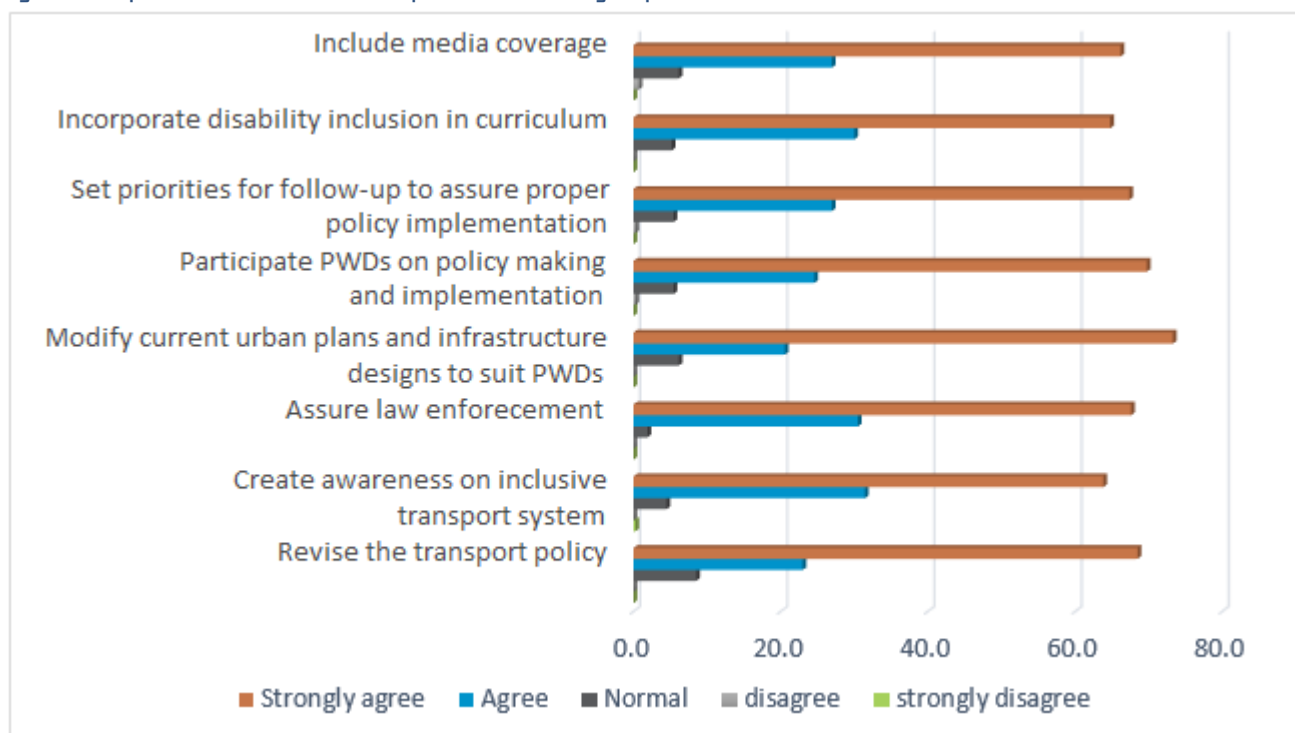
### 3.2. What we found

Previous experience of Ethiopia showed that, various offices have adopted international treaty and developed national policy, regulations and action plans to integrate the need of people with disabilities in different development and social affairs. Some of the developed or adopted disability related policies, proclamations and regulations are the Ministry of Labour and Social Affairs (MOLSA, 1999), Ministry of Education and Training Policy (1994), Transport Proclamation No. 468/2005, Right to Employment of Persons with Disability Proclamation No. 568/2008, Building Proclamation No. 624/2009, Building Regulation No 243/2011, National Plan of Action of Persons with Disabilities (2012-2021), National Transport Policy (2020), and Road Transport Proclamation No. 1274/2022. This study found that the proclamation for building infrastructure is supported with people with disability inclusive directives and guidelines. However, the level of communication of the regulatory framework within organisations is inadequate and lacks clear mandatory enforcement rules and regulations for effective implementation. There were no disability inclusive directives and guidelines found for urban transport infrastructure and transport services.

The project investigated the need for revision and/or formulating a new regulatory framework that enhances the mobility capability of people with disabilities in Mekelle city, in the region and in the wider nation. The result revealed that more than 60% of the respondents strongly agreed with all the proposed measures that need to be taken to minimize policy related problems (Figure 2).

Involving people with disabilities in the preparation and implementation of policies at all levels plays a significant role in realising inclusive development. People with disabilities should participate during planning, design and implementation of public infrastructure and services. However, the participation of people with disabilities in policy preparation for the urban transport sector is limited. During the questionnaire based survey, when the people with disabilities were asked if they believe people with disabilities participated in the preparation of transport related policies, 36.4% replied “No” and “49.65%” replied “I do not know”. This indicates that the majority of respondents do not believe they have an opportunity to participate in the policy formulation process in the transport sector. This was confirmed during the focus group discussion session where representatives from the city administration agreed that the participation of people with disabilities in policy making of the urban infrastructure and transport services is inadequate.

Figure 2: Proposed measures based on quantitative survey respondents





The questionnaire based surveys indicated that the top three problems of urban transport infrastructure that negatively impact the safety and daily mobility of people with disabilities in Mekelle city (Table 1) were:

- Lack of or poor accessibility of public infrastructure,
- Design problems of sidewalks, and
- Poor management of sidewalks.

**Table 1: Causes of poor urban transport infrastructure/facility for people with disabilities in Mekelle city**

Infrastructure/facility condition	Rank
Lack of/poor accessibility of public infrastructure/facilities	1
Sidewalk design problems	2
Poor management of sidewalks	3
Lack of wheelchair, walking stick, and other basic mobility aids	4
Absence of resting places for people with disabilities	5
Poor boarding facilities of public buses, taxis, rickshaws, etc.	6
Poor connectivity of road infrastructure to public spaces	7
Poor information and signage on road, and limited timing of traffic light	8
Poor design of mobility aids	9
Uncomfortable interior features of buses, taxis, rickshaws	10
Bad driver/driver's assistant behavior	11

Poorly developed and managed urban infrastructure in Mekelle city has negatively affected the livelihood of people with disabilities. The primary impacts of existing poor urban transport infrastructure on people with disabilities included difficulties in accessing work, education and healthcare.

During the questionnaire-based survey, when the respondents were asked whether the transport infrastructure in Mekelle city is inclusive, 74.7% of them replied “No” and only 4.73% of them replied “Yes”. The survey revealed that the existing infrastructure and facilities in the city are unsuitable. The most unsuitable facilities for people with disabilities in Mekelle city were road sidewalks, disability mobility aids, and building entrance ramps (Table 2).

**Table 2: Suitability of existing transport mobility aids and facilities in Mekelle city**

Transport facility and mobility aid	Rank
Disability mobility aid/vehicle parking space	1
Roadway surface condition	2
Roadway slope	3
Boarding facilities at public transport stops	4
Lifts and elevators on buildings	5
Toilet accessibility on buildings	6
Building entrance ramps	7
Disability mobility aids	8
Sidewalks	9

On site assessment of the existing public transport infrastructure indicated that the walkability of the main streets in Mekelle city were poor, which confirms the findings from the interviews with people with disabilities.

Sidewalks in the main streets of the city were full of roadside static obstacles, encroachments and they were poorly managed and unclear. The availability of infrastructure for people with disabilities were limited, unsafe and they were in an unusable condition.



The study also incorporated the assessment of sidewalk width, curb ramp condition and the effects of roadside static obstructions on main streets of the city. Most of the streets in the study had a width below 3.5 metres. The sidewalk space was poorly managed, with static obstructions randomly located creating a cluttered sidewalk environment. This creates an obstructed path for pedestrians and creates safety hazards for people with visual impairment. According to the effective sidewalk assessment result, only 19.2% of the assessed sidewalks were found to fulfil the recommended width of 2.4 metre required to allow two wheelchair users to pass each other. Also, 46.2% of the assessed sidewalks had an effective sidewalk width of less than 1.2 metres which is below the bare minimum required width. Cobblestone roads in the city serve as shared paths for pedestrians and car drivers with no defined standards. They provide access to residential areas and sometimes connect the city neighbourhoods with the city centre. The cobblestone roads are unsafe, inconvenient, and uncomfortable to be used by pedestrians, especially people with disabilities.

Assessments were also carried out on public transport vehicles, stops and public buildings. All of the public transport vehicles operating in the city were inaccessible to wheelchair users and do not have any facilities to aid people with visual impairment. Some of them do not have space to carry wheelchairs. Public transport stops in the city are limited. No defined stops were observed in the streets of the city, except shades with seating. However, there is no access to ramps, tactile guidance, and other supporting facilities for people with disabilities. The findings of the survey revealed that only 14.3%, 40%, and 42.9% of the surveyed commercial buildings, health centres, and government offices respectively were accessible to people with disabilities. More than 75% of the available entrance and exit ramps on hotels and commercial centres were constructed with inappropriate location, slope, landing, and width.

The results from the workshops, key informant interviews and focus group discussions indicated that the major disability related problems in the urban road infrastructure arise from inadequate policies and regulations, poor law enforcements, and lack of integration of infrastructure related sectors during planning, design and implementation. The major problems in the city leading to the exclusion of people with disabilities from the built environment and transport services are not only the results of poor law enforcement or lack of directives and guidelines, but also the result of poor awareness on the needs and rights of people with disabilities and a lack of professional ethics among those responsible for implementation. A wheelchair user from disabilities association described this problem during our research:

*“Even the engineer who built my home was not able to recognize my impairment. He built me an inaccessible home even to the ground floor though I am a wheelchair user. This is how our engineers lack of awareness towards inclusive designs and construction of infrastructure.”*

### 3.3. Why is it important?

The safety and mobility of people with disabilities is very important to improve their access to opportunities and enjoy their lives. These disadvantaged groups have the right to inclusive, integrated and accessible urban infrastructure and services. However, people with disabilities in Mekelle city are facing serious safety and accessibility difficulties, stopping them from getting around the city and accessing transport services. The challenges are mainly institutional, physical, and include a lack of awareness. As the population of the city is expanding quickly and growing civil infrastructure, people with disabilities and other pedestrian challenges need urgent and an integrated policy intervention.

The policy responses to remove the barriers need to be tailor-made or city-specific, but should also incorporate lessons and best practices from other countries and cities in around the globe. Policy interventions should also be supported with results from the research findings in this study. Therefore, this research will be useful for city authorities to make appropriate policy decisions and formulate strategies to realise the inclusion of people with disabilities in the planning, design, and implementation of the urban public infrastructure and transport services.

### 3.4. Follow-up actions

This research work has created opportunity for idea and experience sharing among the researchers and the various stakeholders via the workshops and consultative meetings, focus group discussions, interviews, and reports. The stakeholders engaged in this research work were from Mekelle city municipality/administration and other government offices, people with disabilities associations, local NGOs and advocacy groups, higher education, contractors, architects and engineers, public transport unions, and the community. Consultative meetings, virtual or physical, should continue to be organised on a regular basis to support the exchange of ideas, and promote innovation and best practices, as well as monitor the proper implementation of formulated policies, strategies and guidelines. These meetings and discussions need to incorporate people with disabilities through their associations and advocacy groups.



## 4. Policy recommendations

Findings from this research project will have impacts on the following policy themes:

### 4.1. Key policy themes

- Inclusive policies, proclamations, directives, and guidelines that meet the needs of people with disabilities;
- Safe and accessible urban public infrastructure and transport services for all;
- Improve awareness of the public in making urban transport infrastructure and services inclusive for people with disabilities;
- Inclusive urban infrastructure planning, design and implementation that involves the views of people with disabilities;
- Stakeholder collaboration and engagement for an inclusive urban environment.

### 4.2. Strategic policy recommendations/position

- Ensuring that policies, proclamations, directives and guidelines for public infrastructure and transport services in Mekelle city are inclusive of people with disabilities. Development of policies should be in consultation with people with disabilities through their associations and advocacy groups. The proper implementation of the available rules and regulations in the city should be monitored and evaluated.
- Provision of safe and accessible public infrastructure and transport services in the city. Public buildings and streets should be planned, designed, and constructed to be safe, accessible, and comfortable for people with disabilities and all pedestrians. Accessible public transport vehicles should be introduced to the city.
- Awareness programmes should be created through meetings and delivered through conventional and social media outlets. These should be aimed at government personnel, architects and engineers, contractors, public transport providers and drivers, and the wider community to highlight the needs of people with disabilities in the urban built environment and transport services.
- Available policies, proclamations, directives, and guidelines should be easily available and well communicated among stakeholders and the wider community to reduce confusion.
- Timely evaluation and revision of existing rules and regulations to ensure prompt removal of barriers for people with disabilities in the city. Rules and regulations should be binding and reflect responsibility and accountability of offices, organisations and individuals involved.
- Encouraging collaboration between government bodies, disability associations, architects and engineers, contractors, public transport providers, and other relevant stakeholders to create an inclusive urban built environment and transport services.
- Incorporate disability inclusion in urban planning and transport policy frameworks, promoting universal design principles for public spaces and transportation.
- Facilitate the exchange of best practices and knowledge sharing between cities and regions to promote successful inclusive transport models.

### 4.3. Supporting policy recommendations/ position

- Develop public awareness campaigns to promote disability inclusion awareness among the general public.
- Enhance integration of sectors in urban transport infrastructure during planning, design and implementation stages.
- Conduct regular audits and assessments of accessibility features and safety measures in urban transport systems to identify gaps and prioritize improvements.
- Establish complaints and feedback mechanisms for people with disabilities to report accessibility barriers, safety concerns, and discriminations in the urban built environment and public transport services.





- Foster partnership with disability associations and advocacy groups to get inputs and feedback on the accessibility and suitability of public infrastructure, transport policies and initiatives.
- Allocate dedicated funding for research and innovation to improve safety and accessibility of urban building and transport solutions.

## 4.4. Making policy a reality

Inclusive policy formulation is the first step to realise the needs and protect the rights of people with disabilities. Implementation of these policies is an iterative process that requires flexibility, adaptability, and commitment of all stakeholders. Making a policy reality needs a determined effort and effective implementation strategies. For this reason, enforcement and compliance mechanisms, public awareness campaigns, continuous stakeholder engagement, collaborations and partnerships, capacity building, monitoring and evaluations, and learning from best practices of the city and other cities are key to successfully transform policies into tangible actions and bring the desired change.

### 3.4.1 Co-designing policy

Inclusion of people with disabilities and other stakeholders in formulating and amending policy solutions helps to realize the required changes and bring acceptance from the public.

### 3.4.2 Who do we need to work with?

To realise people with disabilities safe and accessible built environment and transport services in Mekelle city, the commitment and decision making of Tigray Bureau of Urban Development and Construction, Tigray Bureau of Transport, the municipality and city administration, Mekelle City Infrastructure Office, Mekelle City Transport Administration, Tigray Bureau of Social Affairs, Mekelle City Office of Social Affairs is important.

The participation of the people with disabilities associations and advocacy groups, professional associations (architects and engineers and contractors), practitioners, public transport unions, media in the region plays a significant role to share ideas and experiences and get better acceptance from the public. These stakeholders will provide valuable insights and expertise throughout the policy development process. There should be established working groups or committees consisting of diverse stakeholders to collaborate in developing and refining policy recommendations.



## APPENDIX A: Policy actors and stakeholders

The stakeholders of an inclusive policy development and implementation are as listed in the table below.

Institution	Stakeholder	Role
Tigray Bureau of Urban Development and Construction	Director construction regulation	Implementing relevant agenda of the government, developing policy guidelines and framework, monitor policy implementation
Tigray Bureau of Transport	Deputy of transport bureau	Strategic transport planning of Tigray region, preparing transport management plan
Mekelle City Municipality	Mayor representative; and building design permit, urban planning, and cleaning and beautification departments	Preparing urban plan of the city, providing open space and transport and building infrastructure, provide building permit, responsible for urban greenery and beautification
Mekelle City Infrastructure Office	Infrastructure design case team and contract administration case team coordinators	Strategic infrastructure planning, design, and construction contract administration
Mekelle City Transport Administration	Road safety and transport administration officer	Strategic transport planning of the authority/city, preparing transport management plan
Tigray Bureau of Social Affairs	Head of Tigray region social affairs	Works to protect the benefits and rights of communities in Tigray
Mekelle City Zone Social Affairs	Head of Mekelle zone social affairs	Works to protect the benefits and rights of communities in Mekelle city
Tigray Disabled Veteran Association	Head of association member affairs	Local NGO who works on rehabilitation and support of war disabled TPLF veterans and their families
Bright Future Local NGO and Advocacy	Head of the local NGO	Local NGO and advocacy on disabilities
Tigray Disabled Association	Head of the association	Physical disabled people advocacy group in Tigray
Tigray Blind Association	Head of the association	Vision impaired people advocacy group in Tigray
Tigray Disabled Women Association	Head of the association	Women with disabilities advocacy group in Tigray
Rescue and Oasis Actions for the Disables of War (ROAD W)	Head of the local NGO	Local NGO working on rehabilitation and support of war disabled people in Tigray
Hareg Tegar Media (HTM)	Head of HTM	Disability advocacy media
Tigray Consulting Architects and Engineers Association	Head of the association	Designs and implement urban civil infrastructure in Tigray
Tigray Contractors Association	Association representative	Represent the association that works on designs and implement urban civil infrastructure in Tigray
SUR Construction PLC.	Project manager of Mekelle city 44.5km asphalt road project	Work on design and construction of main roads in Mekelle city
Mekelle University	Consultant project coordinator of Mekelle city 44.5km asphalt road project	Work on design review and construction supervision of main roads in Mekelle city
Mekelle City Public Transport Union	Public transport union representative	Public transport service provider in Mekelle city
Practitioners	Civil engineers	Design building and transport infrastructure

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