

Providing Inclusive Bus Rapid Transit (BRT) Services for People with Disabilities in the City of Semarang

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Abstract. This article seeks to understand the issue of disability-inclusive development in public transport through Bus Rapid Transit (BRT) services in Semarang City. This study was carried out using an inclusive development approach. This research is based on qualitative research using data collected from interviews, observation, and document study. The findings show that the Semarang City Government has legally guaranteed the fulfilment of disability rights in terms of transport accessibility through regional regulations. In addition, special fares are guaranteed for disable groups. Unfortunately, these regulations were not supported by the standard operating procedures of the services. Fulfilment of public transport for the disabled is carried out through the provision of wheelchair spaces, wheelchair ramps, and disability cards with Braille letters, however, the Semarang City Government is still trying to realize lower deck BRT. Recommendations to BRT managers include compiling technical instructions for disability services and budgeting to build and maintain disability-friendly infrastructure.

Keywords: Accessibility, Disability, Rapid Transit, Public Transport

1 Introduction

This study aims to analyse the provision of public transport services for people with disabilities in the context of inclusive development. The public transport service in question is the provision of Bus Rapid Transit (BRT) for people with disabilities in Semarang City. The provision of public transport services for people with disabilities needs attention because it is guaranteed in the policy. The provision of inclusive public transport will improve the quality of life of vulnerable groups and is the main key to accessing essential services in urban areas [1]. However, in addition to the availability of public transport services, there are still many barriers faced by people with disabilities such as availability, accessibility, safety, and community attitudes [2]. Although the Semarang City Government is currently trying to provide these services, previous studies on the inclusiveness of public transport provision in Semarang City are still minimal. This study attempts to fill in the gaps in this area.

The Semarang City Government has been providing Bus Rapid Transit (BRT) services since 2009. BRT corridors are being added until there are 8 corridors in 2020. There are also 376 bus stops, 25 large buses, and 135 medium buses. Currently, services are being improved not only in terms of infrastructure, but also in terms of affordability for all groups, including those with disabilities, so they can use BRT. For disabled groups, one form of service offered is special fares guaranteed in Semarang city level policy. On the other hand, from the infrastructure aspect, attention is also being paid to being disability friendly by providing low-entry fleets and improving bus stops.

The provision of accessible public transport must take into account the existence of people with disabilities. Data from the Semarang City Social Service shows that there are 3,191 people with disabilities in Semarang. The disabled population is spread across 16 sub-districts in Semarang City, with the highest proportion being in West Semarang District with 345 people, followed by Genuk District with 305 people, and Pedurungan District with 266 people. Looking at the variety of disabilities, quadriplegic is the largest variety with 776 people, followed by mental disabilities with 768 people, and physical and mental disabilities with 410 people. These data show that people with disabilities are spread over several different areas and have different types of disabilities.

From political point of view, the rights of people with disabilities to use public transport is guaranteed. At least from several disability-related regulations, disability-friendly public transport has four main topics of discussion. First, the provision of public transport that is accessible to people with disabilities. Second, the provision of infrastructure that supports disabilities can include public transportation. Third, ensuring programs and activities for people with disabilities in long, medium, and short-term development plans in planning documents. Fourth, ensuring the provision of space for the participation of people with disabilities in development. Through the existing legal framework, it should be able to guide the planning and implementation of disability-friendly development, including in public transport.

Although the provision of access to public transport has begun to be implemented in several countries, the challenges faced by people with disabilities in terms of accessibility are still being debated. As in the study by Bezyak, infrastructure barriers were found, such as public transport facilities that were unable to reach the destination in timely manner[3]. Inaccessible bus and train station routes and facilities. In addition to human resources barriers, such as lack of driver knowledge and inappropriate driver attitudes, this includes understanding disability ethics and the need for certain types of disability. Apart from that, infrastructure barriers for people with disabilities are also found in public spaces such as roads and sidewalks which are difficult to access for people with disabilities [4]. Difficulties in access for people with disabilities are also confirmed in a study by Soltani which shows that unsafe facilities for people with disabilities are still found when using public transport. Although several regions in Indonesia are currently trying to implement public transport for the disabled, various shortcomings are often found[5]. As in the case of the provision of the Jakarta MRT, where disability groups have been involved, this involvement has entered the pilot stage once the physical construction has been completed. Similarly, the provision of the Jakarta-Bandung high-speed train has not been seen to involve disability groups [6].

It is interesting for the author to raise the question of the extent to which the policy framework included in the development planning in Semarang City has paid attention to the provision of public transport services for people with disabilities. Another question is, to what extent do existing public transport services and facilities pay attention to accessibility for groups with disabilities? The author argues that the macro policy framework related to the provision of public transport services in Semarang City can be said to be strong, but needs to be supported by the provision of technical regulations. However, in terms of infrastructure provision and accessibility, it still does not accommodate the needs of disabled groups. In terms of infrastructure, there are still many buildings that make it difficult for people with disabilities to access public transport.

2 Literature Review

Discussions on inclusive development cannot be separated from efforts to include marginalized groups in the development process. Therefore, inclusive development does not work as a single actor but involves various actors in the development process. Gupta defines inclusive development as development that involves marginalized groups, other sectors, and the state in social, political, and economic processes to improve human welfare, social and environmental sustainability, and empowerment [7]. Teichman wrote a definition that emphasizes equal access to services and efforts to eradicate poverty, where inclusive development provides basic physical protection for society, achieves the eradication of poverty, and removes barriers for citizens to fully participate in society. Thus, it shows that the government, marginalized groups, and other sectors need to be on the same page to achieve development goals. Furthermore, Teichman argues that in order to achieve inclusive development, the state must strive for universal and targeted social programs[8]. At the very least, inclusive development involves several aspects, namely: a) social inclusiveness with a focus on marginalized people, groups, and countries, and b) ecological inclusiveness by paying attention to marginalized groups who are highly dependent and vulnerable to environmental change. c) relational inclusiveness which requires addressing structural causes such as power politics, poverty, and externalization [9].

Gupta noted that the implementation of inclusive development can be achieved through three things. First, the formation of an epistemic community that disseminates knowledge and implements inclusive development and diverse experiences. Second, interactive and adaptive governance. This governance is implemented in the government which has an important role that other actors cannot play. This is to strengthen the achievement of inclusive development through the provision of laws, public goods and services with the principles of non-exclusion and non-rivalry which cannot be provided by the market or NGOs. Third, the adoption of appropriate governance instruments. Appropriate governance instruments can be through regulations, economics, persuasion, management, technology, procedures and cooperation instruments[7]. In addition, there are at least 5 prerequisites for inclusive development that can be implemented at the local level. These prerequisites are: a) fair distribution of development benefits and equity, b) economic opportunities for local people, c) public participation, d) environmental protection, e) mitigation of livelihood shocks [9].

The availability of safe and inclusive transport is the key to building participation in society by providing socio-economic access and providing opportunities for disabled groups[10]. To provide disability-friendly public transport services, it is not enough to provide infrastructure alone, but other prerequisites must also be in place to support the realization of inclusiveness, such as aspects of human resource and policy aspects. These include changing attitudes and raising awareness, involving people with disabilities, implementing disability-inclusive policies, laws, and planning, designing transportation for everyone, providing inclusive mobility education and training, as well as monitoring and enforcing compliance[11]. At least in the assessment of public transport to be more inclusive for people with disabilities, it is assessed not only from the inside the bus, but from before boarding the bus to leaving the bus.

3 Research Method

This research uses qualitative methods by collecting data through interviews, observation, and document study. Written interviews were conducted with the management of Semarang City BRT. Apart from that, interviews were also conducted with social services and non-

governmental organization that focuses on disabilities. Observations were carried out using the Semarang City BRT service and assessing the facilities and services during the trip. Document review was carried out by analyzing regulations from national to local levels as well as relevant studies. Data analysis was conducted through induction, interpretation, and contextualization. Data validation was carried out by triangulating data sources.

4 Result

4.1 Regulatory Framework and Development Planning for the Provision of Inclusive BRT for People with Disabilities

The international legal framework for the protection of the rights of persons with disabilities was agreed in the Convention on the Rights of Persons with Disabilities (CRPD), adopted by the United Nations in 2006. Through this Convention, the right of people with disabilities to have guaranteed access to public transport is included in Article 9 concerning accessibility. The Indonesian Government ratified it in legislation to ensure the protection and fulfilment of the rights of persons with disabilities through Law Number 19 of 2011. After ratification, the government began to mainstream disability rights in public services, including transport, in other policies.

Several policies related to people with disabilities have been issued by both the central government and regional governments. Law Number 8 of 2016 stipulates that one of the important parts of public services that must be fulfilled by persons with disabilities is public transport services on the ground. The content of this regulation is in line with Central Java Provincial Regulation Number 2 of 2023 which places public transportation as part of public services that must be accessible to people with disabilities, including sidewalks and crossings. The mandate for providing inclusive public transportation for people with disabilities is also a concern of the Ministry of Transportation through Minister of Transportation Regulation Number 98 of 2017. The policy states that public transportation service providers are obliged to provide services for service users with special needs by providing accessible service facilities and infrastructure. Accessibility for people with disabilities is assessed in terms of facilities and infrastructure as well as human resource management.

Mandates for inclusive development for persons with disabilities must also be included in government programs and activity documents. Government Regulation Number 70 of 2019 emphasizes that several development planning documents must accommodate inclusive development for people with disabilities. Under this regulation, the central government must prepare long-term planning documents in the form of a Master Plan for Persons with Disabilities (RIPD) and medium-term in the form of a National Action Plan (RAN) for persons with disabilities. Likewise, the provincial government is also mandated to form a Regional Action Plan (RAD). This is different from district/municipal governments, in terms of planning for people with disabilities, it can be done through short-term planning and budgeting (1 year). Even though it is not a direct mandate for the City/Regency government to prepare a Regional Action Plan (RAD), the Semarang City government is quite progressive in adopting policies. In addition to drafting regional regulations, the Semarang City Government is preparing an Inclusive City Regional Action Plan (RAD). The Regional Action Plan (RAD) includes public transport content which is in line with the National Action Plan (RAN) for Persons with Disabilities.

Regulations related to public transportation for people with disabilities in Semarang City are more comprehensive. In Semarang City Regional Regulation Number 9 of 2021, the right to public transportation is emphasized in several sections. First, the right to education, through financial assistance and/or providing transport facilities for students with disabilities. Second, tourism and arts and culture rights, through providing accessibility for people with disabilities in terms of transportation. Third, the right to public services, through public transportation services. Fourth, the right of way, through facilities for pedestrians that are easily accessible to people with disabilities, including sidewalks and road crossings. Policies related to BRT in Semarang City provide a discount policy for people with disabilities. People with disabilities get a special fare of 1000 rupiah, while the general fare is 4,000 rupiah for cash payment and 3,500 for cashless payment through Semarang Mayor Regulation Number 39 of 2022.

In the development process, politics plays an important role in creating processes of exclusion and inequality as well as in creating recognition of injustice as a problem and in determining what policies will be adopted and how to implement them to deal with injustice [12]. In the context of development for people with disabilities in Semarang City, the provision of regulations in the form of Regional Regulations shows that both the executive and legislative institutions in Semarang City both consider the importance of a development agenda involving disability groups. Apart from this, the relatively faster creation of regulations compared to Central Java Province, also emphasizes that development involving disability groups has been included in the development agenda in Semarang city more quickly than in other regions. The implementation of inclusive development can also be achieved through the realization of interactive and adaptive governance, which can only be carried out by the government and cannot be replaced by other actors [7]. The provision of Regional Regulations on Persons with Disabilities accompanied by an Inclusive City Regional Action Plan, shows that the government has moved to carry out inclusive development. This shows that the state plays a major role in providing inclusive and equitable transport [13].

Although the goal of inclusive development is economic growth and the benefits of public policies for the entire community, it is important to understand that the focus of inclusive development is on efforts to uplift groups that are excluded or identified as vulnerable groups [8]. In the case of Semarang, transport policies are integrated into several services. Transport policies are included in tourism rights, education rights, public service rights and road rights. In such conditions, the available policy content aims to provide convenience for disabled groups as vulnerable groups in various public services. In this way, the provision of inclusive public transport for people with disabilities should be able to eliminate exclusion from facilities, as it should be able to connect public facilities [14]. Furthermore, the provision of regulations that guarantee discounts for people with disabilities in Semarang City is an effort to reduce economic exclusion and increase their ability to access public transportation in the context of inclusive development [14][15].

4.2 Adequate Infrastructure and Inclusive BRT Services for People with Disabilities in Semarang City

The precursor to the availability of disability-friendly BRT services has been available since its launch in Semarang City in 2009. At the launch of BRT corridor 1 on the Penggaron-Mangkang route in September 2009, the bus fleet used a high deck, but there was space available for wheelchair users and four priority seats were available. There are 20 buses donated by the Ministry of Transport. Furthermore, in March 2017, a medium-deck fleet with wheelchair space

was also provided for Corridor V on the PRPP-Meteseh route. The provision of low-entry buses for people with disabilities will not start until September 2022. In addition, we will launch a fleet of minibuses for people with disabilities for corridor VI on the Diponegoro University-Semarang State University route in 2023. To date, there are 321 disabled-friendly bus stops available, and the number of disabled-friendly buses with low entry until the end of 2022 is 2 buses in two corridors. One bus is in corridor 3 with the Port -Elizabeth route, and another bus is in corridor 4 with the Cangkiran Terminal – Tawang Station route. Bus stop facilities are being progressively upgraded with ramps and low-boarding buses. Facilities are provided for all types of disabilities.

Based on observations made while traveling using the BRT from the City Hall Bus Stop to the Cangkiran Terminal Bus Stop, the available transport facilities are not fully disability responsive. In the available buses, there are empty seats between male and female passenger seats that can be used by wheelchair users. Unfortunately, although BRT buses have digital information boards, they don't light up to give information about the next stop. This is an obstacle for deaf people. However, it is interesting to note that the BRT officers are quite good and responsive in helping passengers who have difficulty getting on or off the BRT because of the high distance or wide distance between the bus door and the bus stop. BRT officers are also quite active in communicating the next stop to make it easier for users who don't know it. At the very least, the responsive attitude of the officers will be a driver of effective inclusive development practices [16].

Based on the observations made, there are several barriers related to the needs of people with disabilities when using BRT, namely:

1. There is a gap between the bus door and the bus stop when the bus stops to pick up or drop off BRT passengers.
2. The bus stop building is not positioned parallel to the bus door. It is higher or lower than the bus door
3. The bus stop building does not have handrails
4. The bus stop does not have sloped access and only stairs are available
5. The bus stop drop is directly facing a tree, making it difficult for disabled users to climb the bus stop.
6. Some BRT stops do not yet have bus stop buildings.
7. The digital information board in the BRT is not operational

This condition was also communicated by the BRT management in terms of physical challenges, i.e. the location and slope of the bus stops were inappropriate, the ground conditions were unstable in various places. Meanwhile, the human challenges are a lack of awareness in maintaining the BRT infrastructure and a lack of awareness in prioritizing people with disabilities. Due to several infrastructure challenges that make it difficult for people with disabilities to access BRT, this should be one of the future development agendas. Although in practice, the service provided by the officers is quite good, if it is not balanced with infrastructure improvements it will become one of the challenges of inclusive development [17].

In order to improve services, the capacity of BRT officers has been enhanced. The capacity building includes training in sign language and basic knowledge of different types of disabilities. Unfortunately, the existing disability services do not yet have standard operating procedures for disability services when using BRT. However, the Semarang City BRT provides complaint

facilities for BRT users. The complaint facilities are provided via telephone number, Whatsapp and Trans Semarang social media such as Instagram, Twitter, Facebook, Telegram and Sapa Mbak Ita. The plan for future development of BRT infrastructure for the disabled is budgeted at 900 million rupiah.

The service for providing cards for people with disabilities when using the Semarang City BRT is currently not managed collaboratively with other institutions outside the Semarang City Transportation Service. According to a statement made by the Mayor of Semarang in 2022, arrangements to obtain cards for people with disabilities when using the Semarang City BRT can be carried out by sub-district offices, social service offices, or Semarang City BRT stops. However, until now the involvement of the Semarang City Social Service in disability card services is currently limited to the distribution of card to 100 persons with disabilities at a time. The involvement of the Semarang City Social Service is to select 100 people to receive the cards. Likewise, the sub-district does not yet know how to provide disability cards for the Semarang City BRT. So far, the service provided by the sub-district only provides a letter of introduction. Under these circumstances, there was confusion experienced by disabled people when applying for a disability card at the bus stop, but the bus stop staff did not know about this service, and when they went to the Social Service to get it, there was no coordination with the Transport Service.

According to the BRT manager of the Semarang City Transport Department, 1746 disability cards have been distributed. The disability card for using BRT can be obtained at bus stops where staff are present, such as City Hall Bus Stop, Simpang Lima Bus Stop and Imam Bonjol Bus Stop, Cangkiran Terminal. Unfortunately, confirmation from BRT officers shows that there is no clear SOP for the provision of cards. This is also in line with the interview conducted with the BRT management if there is currently no Standard Operating Procedure for disability services when using BRT in Semarang City. Thus, it is not surprising if there is a difference in information between locations to get a disability card. With so many cards being distributed, it is important to provide public transport along with infrastructure and administrative facilities to make it more inclusive. Providing public transport that can be a choice for disabled groups will be an incentive and help to participate in activities [18].

Based on interviews with several officers at different bus stops, it shows that there are differences in information about BRT card services for the disabled. Information from Semarang City Hall bus stop officers is that processing BRT disability cards can be done at bus stops where officers are present. Similarly, at the Cangkiran terminal, the officers can provide disability card services. However, at the City Hall bus stop, in order for a disability card to be processed, the disabled person must come in person to get the card. However, if you are at the Cangkiran Terminal to apply for a disability card, you can be represented by bringing the relevant Resident's Identity Card (KTP).

Based on interviews conducted with users and also the head of the disability organization, it was found that the existence of disability-friendly BRT has a big impact because it is an option for working parents who have children with special needs who can be trained to use BRT, to reduce cost by using online vehicles. However, there are still some shortcomings, especially in terms of infrastructure. As seen at one of the State Special School (SLB) location in Sendangmulyo Semarang, the BRT bus stop is not properly located and shaped, and SLB students take up the road when waiting for vehicles. The staircase infrastructure of the BRT bus stops still needs to be improved.

The advantages and disadvantages of infrastructure were also shared by one of the heads of community organizations that focus on disabilities. Sammi Institute and Kota Kita conducted an FGD where one of the topics of which discussed was the provision of BRT for the disabled in Semarang City in 2022. Through the discussions, it was noted that there are still shortcomings in terms of infrastructure, such as the condition of the ramp, slippery floors that are dangerous, the slope of the road that is not suitable for wheelchair users, and handrails that do not help the blind. However, it should be noted that in the BRT there is already an audio system to indicate the position, the availability of writing that can help the disabled. The service of the officers is good, because there has been training to treat disabilities, although sometimes people with disabilities still have to communicate that they have limitations.

The various findings above show that in terms of regulation, there is no doubt that the Semarang city government has robust and coordinated regulations from the central to the regional levels. However, in terms of field implementation, there are still things that need to be improved so that existing policies can be implemented perfectly. According to the results of interviews and observations, several improvements are still needed, especially bus stop facilities, considering that facilities and infrastructure are one the supports for inclusive development by considering various individual barriers from before to after using the facilities [17][10][19]. However, when comparing regulations, observations, and interviews, one thing that deserves recognition is responsive officers and training for officers in sign language. This will promote effective inclusive development practices [16]. There are still various barriers to the provision of disability-inclusive public transport services, which have only been running for almost two years. Infrastructure constraints still exists, both in the bus facilities and in the supporting infrastructure before and after getting off the bus.

5 Conclusion

1. The provision of disability-friendly BRT public transport in Semarang City is already strong in terms of regulatory guarantees. The regulations in Semarang City regarding people with disabilities have been adopted from national regulations and have a more comprehensive public transport content. In addition, Semarang city also has Regional Action Plans that are not directly mandated. Unfortunately, there are no Standard Operating Procedures available to guide the provision of services for people with disabilities using BRT.
2. The provision of BRT public transport facilities for people with disabilities in Semarang City is not yet fully inclusive. The provision of buses and bus stops is still not accessible and cannot accommodate existing types of disabilities. However, there are BRT staff who can provide good services and have increased capacity in terms of disability services.

6 Recommendation

The recommendations that can be suggested are that the management of Semarang City BRT can provide technical regulations for services for people with disabilities, both from disability cards, infrastructure services, and officer services. Furthermore, to promote infrastructure improvements, there needs to be an annual budget commitment used to build and maintain Semarang City BRT facilities so that they are friendly to various obstacles for disability groups.

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