

REPORT ON ACCESSIBILITY AND DISABILITY INCLUSION ON THE PUBLIC TRANSPORT SYSTEM IN PHNOM PENH

PHNOM PENH



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List of Acronyms

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“ List of Acronyms

- BRT** Bus Rapid Transit
- CBA** City Bus Authority
- CDPO** Cambodian Disabled People’s Organization
- DAC** Disability Action Council
- DDA** Disability Data Application
- RGC** Royal Government of Cambodia

- HI** Humanity & Inclusion
- JAT** Journey Access Tool
- JICA** Japanese International Cooperation Agency
- MRT** Mass Rapid Transit
- PPUTMP** Phnom Penh Urban Transport Master Plan
- The Foundation** The Asia Foundation



I.

Background



I. Background

Persons with disabilities continue to face exclusion and discrimination in areas ranging from education to employment and social services. They are often the poorest and most vulnerable, not systematically consulted or considered in the decision-making process and the planning and design of investment projects that will impact their daily lives.

Cambodia has an estimated 689,532 persons with disabilities (58% female) and this includes various conditions that impact on individuals' ability to function and access or interact with their environment, such as difficulties seeing, hearing, moving, or difficulties with memory, self-care and communication.¹ There are approximately 289,135 persons with disabilities living in urban areas in Cambodia, where access to services including public transport is essential. However, people with disabilities have reported incidents in which they have been made to pay extra fees for mobility devices or have been denied access to public transport as a result of the extra space required for the devices.² The use of the roads, crossing points, and pedestrian pathways required to access public transport and other services is often rendered unsafe in Cambodia by damaged, missing, or poorly designed infrastructure. These may include lack of walkway or obstructions that force participants onto the roadway, the blocking of sidewalks by parked cars and vendors, no audio information or difficulties on the route for people with a visual impairment at the bus stop and on the bus, no mechanical lift/ramp for people with a physical impairment to get on the bus, and no seating place or space for wheelchairs on the bus.³ While driving a personal appropriately equipped vehicle is an ideal solution, this is simply not an option for most people with disabilities in Cambodia.

In July 2017, the Chinese Government donated 98 buses, valued at around USD 8.4M, to Phnom Penh municipality to extend its public bus services, expanding on the domestic initiative which began in 2014 with 43 buses. Then, in

2018, the Japanese Government announced a donation of buses to the municipality. The first shipment of 80 buses was arranged in May 2018. The donation was estimated at around USD 8M. The donations from China and Japan contributed to an extension of the bus routes in Phnom Penh from three lines in 2014 to 13 lines in 2018 and serviced around 30,000 people per day in 2019. In early 2020, the bus service was suspended because of the COVID-19 outbreak. On November 1, 2021, the government of Cambodia removed some strict policies related to COVID-19 based on four factors, including full vaccination of much of the population, the availability of effective COVID-19 treatment, increased experience in dealing with the Coronavirus, and increased public understanding of COVID-19 and how to prevent infections. Thus, bus routes have resumed.

With support from the Ford Foundation, The Asia Foundation's (The Foundation) project "Enhance Disability Inclusion in Chinese Overseas Transport Infrastructure Investment" aims to strengthen the disability sensitivity of Chinese investment policies and regulations by conducting policy reviews and case studies of transport infrastructure investments with disability inclusion perspectives in two selected countries—Indonesia and Cambodia.

As a part of the regional project, Humanity & Inclusion (HI), an international organization, has been commissioned by The Foundation to conduct an accessibility assessment and policy dialogue on the transportation system in Phnom Penh, Cambodia, specifically in relation to donated buses by China and Japan for use in Phnom Penh for public transport. The purpose of the assessment is to identify the existing context of disability inclusion in public transport, including with the donated buses, and how the public bus system can be improved for better accessibility by persons with disabilities. The Beijing Rongzhi Corporate Social Responsibility Institute was engaged in the research process by reviewing and contributing insights into the research findings from a Chinese perspective.

1. Cambodia's National Institute of Statistics, 2020.

2. Kleinitz, Nimbul, Walji, Mannava & Vichetra, 2012; Savil, Stone, Venter & Maunder, 2003.

3. JAT pilot findings in 2015

II.

Methodology

II. Methodology

The objective of this assignment was to conduct a disability inclusion assessment of the bus donation strategy and to facilitate a policy dialogue to provide Cambodian decision- and policy-makers with updated and robust information. The assessment explores the level of accessibility of the transportation system in Phnom Penh in order to encourage and facilitate mitigation strategies for the benefit of persons with disabilities and other vulnerable groups.

The tasks conducted under this assessment included:

- ☑ Develop disability inclusion assessment methods to conduct the Journey Access Tool (JAT) assessment, revise the JAT tool based on the methods proposed, and conduct JAT audits.
- ☑ Produce a JAT audit report based on the JAT assessments.
- ☑ Analyze and develop a report on the bus donation scheme between the Cambodian government and the Chinese and Japanese governments, and assess to what extent these donations have involved organizations of persons with disabilities, with what modalities, and to what extent that they have taken into account their inputs and suggestions.
- ☑ Propose a methodology to conduct a validation workshop of the policy brief and the policy dialogue workshop.
- ☑ Develop a policy brief based on the review of the donation scheme, the findings from the JAT assessment, and the outputs from the validation workshop in collaboration with the HI and The Foundation team.
- ☑ Co-facilitate the validation workshop and the policy dialogue with HI and The Foundation, and facilitate face to face and online discussions, to share the policy brief with the policy makers and relevant stakeholders.

The original methodology planned for these tasks was disrupted by the pandemic and constrained by the lack of available documentation on the donation of the buses. As a result, the tasks listed above were conducted in practice in two parts- the JAT and the review of the donation scheme.



III. Desk Review

- Previous Journey Access Tool (JAT) studies and national technical standards on physical accessibility
- Inclusion assessment of the bus donation strategy
- Focus Groups Discussion on Donation Scheme and JAT assessment

3.1

Previous Journey Access Tool (JAT) studies and national technical standards on physical accessibility

This desk review builds upon the findings of the policy review. It allows for an in-depth understanding of disability inclusion in the transportation framework with a focus on the Cambodian transportation network and donation scheme. The desk review determines to what extent the Phnom Penh master plan, transportation system plan, and donation schemes have considered disability inclusion and have complied with the national technical standards of physical accessibility-infrastructure, which is aligned with the universal accessibility design for persons with disabilities.

The Phnom Penh Urban Transport Master Plan (PPUTNP) 2035 aims to maintain the people- and environmentally-friendly urban conditions and vitalize the urban activities in Phnom Penh. The formulation of a people and environmentally friendly urban transport system with high mobility for citizens is one of the five strategies of the PPUTNP. This master plan was designed to include vulnerable people such as people with different types of disabilities, elderly, pregnant women, children, etc. and how they could benefit and access the transport system, transport modes, and urban infrastructure such as stations, bus stops, pedestrian pathways and crossing points. All public transport lines should cover other poor communities in the urban area.

JAT Assessment report 2021

The JAT was originally developed by a team from Queensland University in collaboration with HI Cambodia in 2015. The JAT combines access audit and road safety audit approaches to identify barriers to transport on journeys taken by people with a disability. To be useful and effective, the JAT must fit the expectations of people with a disability (be acceptable) and be feasible for use in different settings (adoptable). The tool has significant potential to shape and support advocacy for change and engagement with transport services and also health, education, employment, and other services⁴.

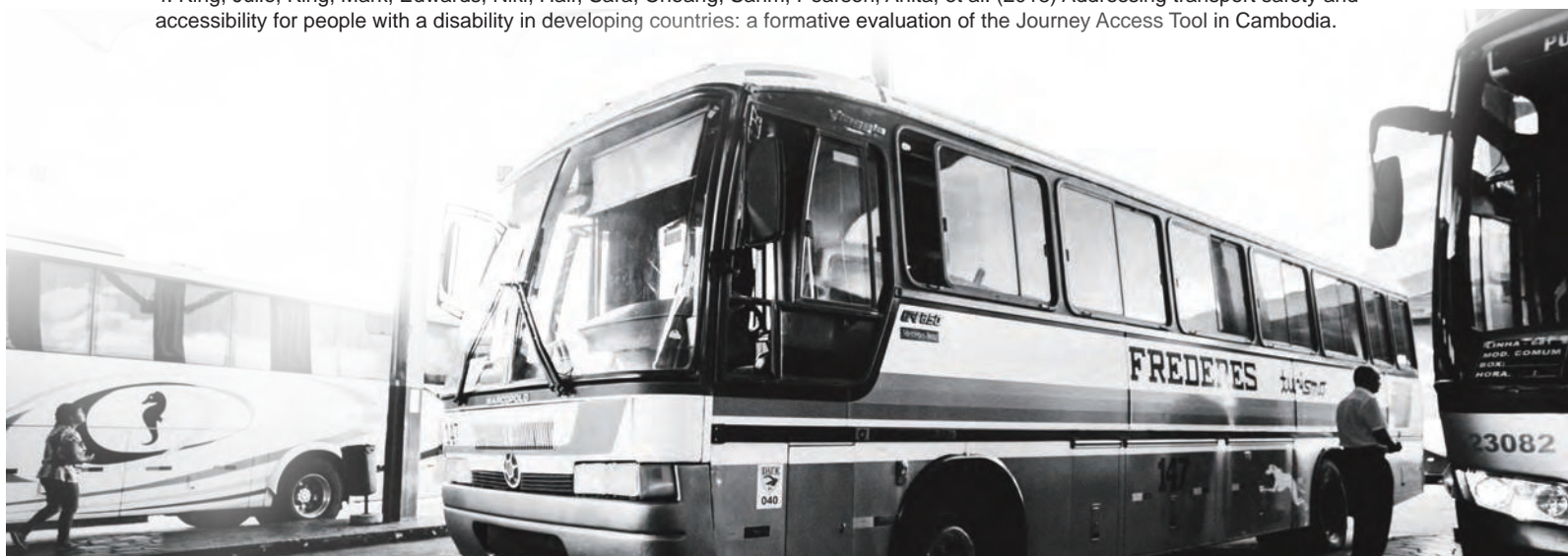
A critical component is to develop mode interchange areas as convenient transfer points, such as bus stops and rail stations, that provide connections between modes and a well-designed pedestrian environment. The connection of the pathways, crossing points, traffic lights, and bus stops should also be considered in the universal design.

The three previously conducted JAT assessments had similar findings (the first JAT pilot in 2015 focused on the inefficient road usage situation, the JAT 2021 focused on the sidewalk accessibility to the bus stops, and the JAT 2022 focused on the bus stops, boarding, de-boarding from the bus, and the bus itself and on the barriers present for people with disabilities). While the lack of enforcement of traffic laws and parking regulations is a major factor in the alternative use of sidewalks, there are other common factors that inhibit ease of public transport use for persons with disabilities:

- It is common to see passenger cars and motorcycles parked at road corners, on the sidewalks, or even within intersections.
- The sidewalks blocked by parked vehicles have caused significant risks to pedestrians as they are left with no choice but to walk on the roadway, especially for people who use wheelchairs and people who are low vision or are totally blind.
- Vehicles parked on the sidewalks, roads, and in front of the bus stops have affected the access of the city bus to board passengers, especially passengers with disabilities.

Based on the findings, it is hoped that the Phnom Penh city government, the police force, and other related governmental agencies can work closely together to overcome these pressing problems. The continuous sidewalk network can be secured with the creation of safe and comfortable pedestrian spaces for roadside residents and tourists.

4. King, Julie, King, Mark, Edwards, Niki, Hair, Sara, Cheang, Sarim, Pearson, Anita, et al. (2018) Addressing transport safety and accessibility for people with a disability in developing countries: a formative evaluation of the Journey Access Tool in Cambodia.





In the JAT report in 2021, several other barriers were mentioned that applied to paths rather than to roads.

7

- 🚧 Regulation/enforcement issues on paths, e.g., paths blocked by vehicles, vendors
- 🚧 Regulation/enforcement issues on roads, e.g., traffic speed, not stopping at crossings
- 🚧 Inadequate provision of path infrastructure, e.g., no path, too narrow, and discontinuous
- 🚧 Inadequate provision of road infrastructure for pedestrians, e.g., lack of road signs, and lack of crossing, concrete block inadequate as the median
- 🚧 Poor or absent maintenance of existing paths, e.g., broken pavement, slip hazards, uncollected rubbish, trees
- 🚧 Inadequate maintenance of existing road infrastructure for pedestrians, e.g., crossing markings erased, missing signs
- 🚧 Problematic traffic context, e.g., busy roads

4



Transport stop access, e.g., lack of curb ramps, and landing pads.



Transport stop maintenance, e.g. broken pavement; Information provision at transport stop, e.g., lack of sign, difficult to read.



Access to public transport when it arrived, e.g., problems getting into the bus nowhere to store wheelchair.



Information provision at transport stop, e.g., lack of sign or signage, signs are difficult to read.

There are **2** disability-specific barriers across phases:



Disability-specific issues, i.e. barriers specific to a particular kind of disability



Treatment on public transport, e.g., lack of assistance from staff.

Ten participants with disabilities felt that a lack of enforcement of regulations on paths was a barrier (they specifically mentioned vehicles parking on paths and vendors blocking paths), and all participants felt that there was a lack of provision of paths for some or all of the routes. Both of these types of barriers were frequently cited, along with the provision of road infrastructure for pedestrians (ramps, crossing points, and medians that are usable and safe) and maintenance of paths (a variety of trip hazards). But the most frequently mentioned challenge was fear of being involved in a collision, which was higher than any of the other identified barriers.

The barriers mentioned contain a strong emphasis on problems with pathways that force participants onto the roadway, and the strong concern about the risk of being hit by vehicles points to safe pathways as a major area of focus. Interestingly, participants placed less emphasis on other issues that also contribute to the crash risk that they fear: there seemed to be an acceptance that the traffic was busy and would continue to be so, and although driver behaviour and the need for traffic regulation (e.g., speeding) were mentioned, it occurred much less than mentions of blocked sidewalks.

Technical Standards of Physical Accessibility-Infrastructure for Persons with Disabilities in Cambodia, 2018

Interministerial Prakas⁵ between the Ministry of Land Management, Urban Planning and Construction and the Ministry of Social Affairs, Veterans and Youth Rehabilitation, No. 248 was issued on November 28, 2018.⁶ This Prakas aims to introduce the Technical Standards on Physical Accessibility Infrastructure for Persons with Disabilities and applies to projects for the construction and modification of public physical infrastructure, public service buildings, and public spaces in the Kingdom of Cambodia such as road networks, sidewalks, parks, parking lots, train stations, airports, schools, administrative buildings, educational institutions, hospitals, health facilities, hotels, restaurants, markets, and factories. The technical standards provide accessibility for persons with all types of disabilities, allowing them to move, enter and exit, and access facilities easily, safely, and without barriers. Below are some of the minimum standards of access routes to be considered:

- ☑ The route shall have a hard and level surface with slopes of no more than 1/50
- ☑ Avoid leaving holes and tilt between bricks larger than 5 mm
- ☑ Prevent danger at height changing places with appropriate ramps and guardrails
- ☑ The route width shall be at least 2,000 mm wide for wheelchairs to pass one another easily.
- ☑ The minimum width for a pathway in an area that many people use, such as the paths to hospitals, train stations, schools, and flood safety hills is 2,500 mm.

These standards and guidelines are in line with the recommendations from the JAT in 2021 on the accessible pedestrian pathway, curb ramp along the way to the bus stops, and accessible information for people with low vision. Transport buildings refer to buildings serving modes of public transportation, such as city bus stations, railway stations, ports, and airports. Universally designed transport services begin not from the point of boarding the city bus, train, ship, or airplane, but from the point where passengers with disabilities start from their homes and extend until they reach their intended destination, regardless of distance.

Standards and guidelines for size and layout of transport facilities:

- ☑ Ensure that buildings are set up at a location that is convenient, easy to navigate, and avoids long walking distances
- ☑ Ensure that services and locations are clearly visible.
- ☑ Ensure that the arrival platform has a roof against rain and sun.
- ☑ Set up appropriate seating at all waiting areas.
- ☑ Provide all travel information in as many forms as possible (sound, graphics, etc.)

5. Prakas is a Cambodian term that means official proclamation. It is a ministerial or inter-ministerial decision signed by the relevant Minister(s).

6. TECHNICAL STANDARDS ON PHYSICAL ACCESSIBILITY INFRASTRUCTURE FOR PERSONS WITH DISABILITIES, 2018

- ✓ Ensure that all travel information is clear and easy to understand.
- ✓ Ensure that the travel schedule is accurate, available, and easy to see.
- ✓ Display travel schedule at the most appropriate places at suitable heights and sizes.
- ✓ Allow the appropriate time for passengers to transfer.

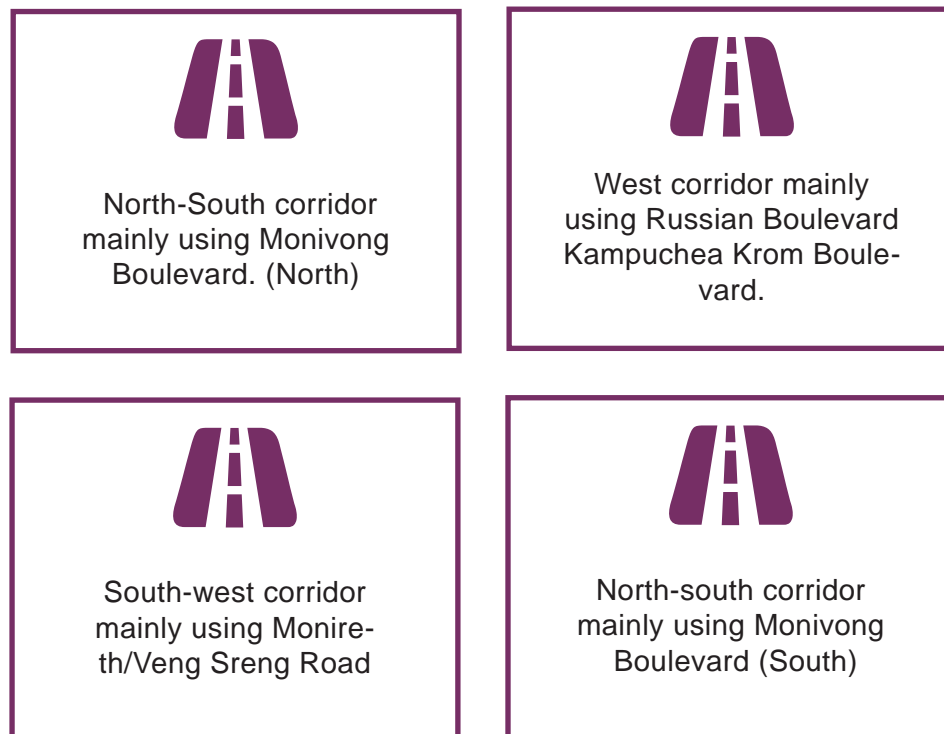
These national guidelines document design specifications for public transport infrastructure and to make transport connections more accessible to all passengers including people with different types of disabilities. However, these standards are focused on physical infrastructure rather than overall accessibility in transportation.



3.2 Inclusion assessment of the bus donation strategy

Mapping of the current living areas of persons with disabilities and the public city bus routes in Phnom Penh

Based on the corridor analysis graphical presentation, the public transport corridors in Phnom Penh were divided into 4 corridors as below⁷:



With the new fleet, the City Bus Authority (CBA)⁸ expanded its service network from three lines in 2016 to 13 in 2018, covering most of Phnom Penh. Compared to the bus routes in 2020, these four corridors are covered by 13 bus routes as shown in Figure 1 - a serving the city's 14 Khans (Boeung Keng Kang, Chamkar Mon, Chbar Ampov, Chraoy Chongvar, Dangkao, Doun Penh, Kamboul, Mean Chey, Praek Pnov, Prampir Meakkakra, Po Senchey, Russey Keo, Saen Sok, and Tuol Kouk). The public bus is currently managed and operated by the CBA, which was established in 2015. These expanded bus routes also helped to increase ridership – from 7,000 passengers per day in 2017 to around 30,000 in 2019. However, the city bus operations have been significantly impacted by the COVID-19 outbreak since early 2020. The public bus services were temporarily suspended due to the pandemic. On November 2, 2021, the bus services resumed but with limited availability, operating only four bus routes⁹ (Line 1A: from Bus depot at Prek Pnov-Boeng Chhuk (Preh Monivong), Line 2: from Kouch Kanong roundabout-Prek Samrong Bridge (Preh Norodom), Line 3: from Freedom Park-Borey Santepheap 2 (Russian Federation Blvd.), Line 4A: Freedom Park- Borey Santepheap 2 (Charles De Gaulle and Samdach Monireth), and Line 4B: From Freedom Park-Ang Snoul (Charles De Gaulle, Samdach Monireth, and Veng Sreng Blvd.). Thus, HI conducted JAT with these four bus routes only.

7. THE PROJECT FOR COMPREHENSIVE URBAN TRANSPORT PLAN IN PHNOM PENH CAPITAL CITY (PPUTMP), Final report 2014

8. CBA was established by Phnom Penh Authority in 2014 to manage and operate the Phnom Penh city bus service. Currently, CBA is under the management of Phnom Penh municipal authority with support from JICA.

9. The public announcement of CBA, No.0237, 1 November 2022

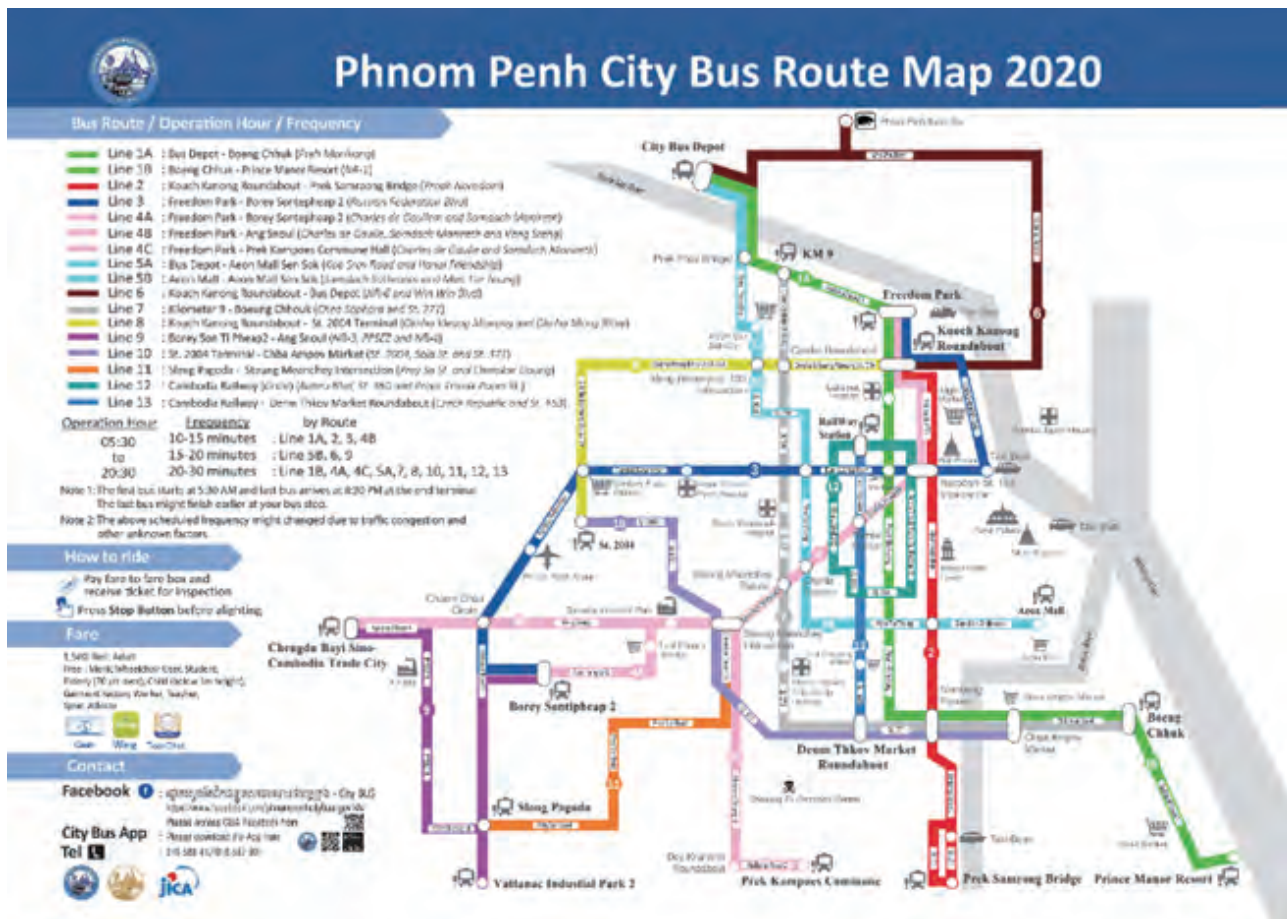


Figure 1: Phnom Penh City Bus Route Map, 2020 (Phnom Penh Capital, 2020)

As described in Figure 2 below, Khan Chbar Ampov in Phnom Penh has the highest disability rate. In addition, a high number of persons with disabilities live in Sangkat Kbal Koh (461), and Sangkat Prek Pra (447) located in Khan Chbar Ampov. Only one bus route (Line 1A+1B) with 25 bus stops is available for the Khan Chbar Ampov and the nearest bus stop is around 2-3 km from these Sangkats.

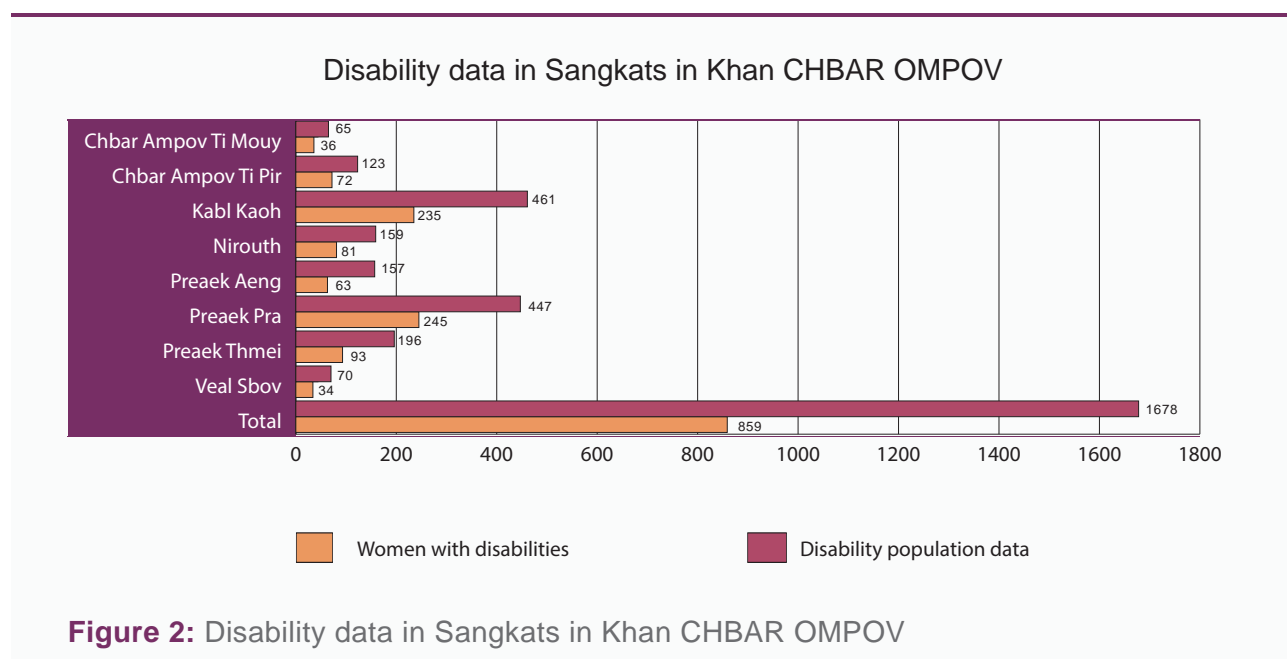


Figure 2: Disability data in Sangkats in Khan CHBAR OMPOV

Figures 4 and 5 show that Sangkat Kok Roka (590) and Sangkat Ponhea Pon (156) in Khan Prek Pnov have high numbers of persons with disabilities and these areas are also considered as poor areas. No public transport is available in these areas. They are located about 6 km from the nearest bus stop (in another Sangkat of Khan Prek Pnov) to the residential areas of persons with disabilities.



Figure 3: Two Sangkats have the highest number of people with disabilities in Khan Chhbar Ompov

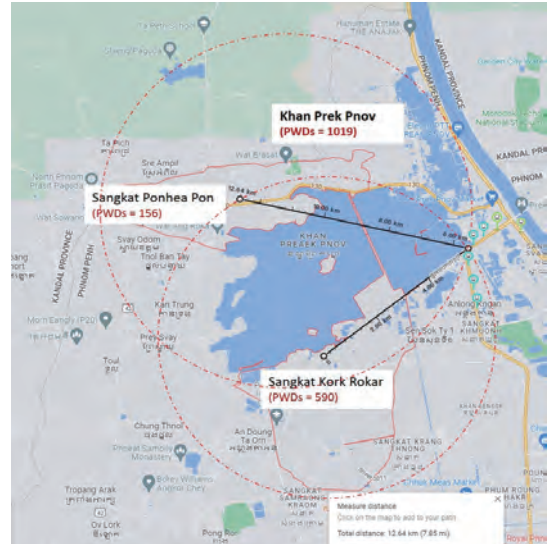


Figure 5: Two Sangkats have the highest number of people with disabilities in Khan Prek Pnov

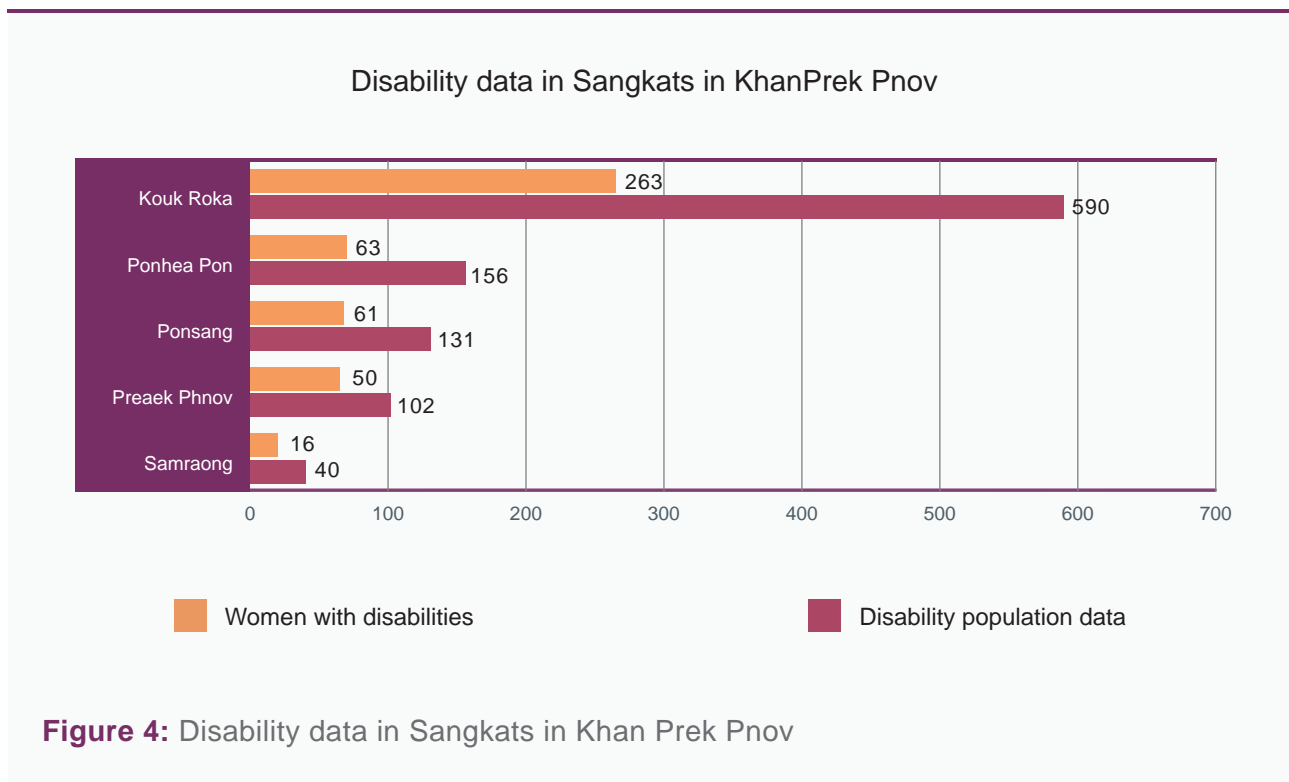


Figure 4: Disability data in Sangkats in Khan Prek Pnov

Figure 6 demonstrates that many persons with disabilities live in Sangkat Chom Chao 1, 2, and 3 (515) and Sangkat Kakab 1 and 2 (312) in Khan Por Sen Chey. Four bus routes (lines) run across these areas to provide transport services. There are 19 bus stops of 4B line on the Veng Sreng roads-national road number 4 and 13 bus stops (line 4A) on Toul Pongro road across in Sangkat Chom Chao 1,2 and 3. In addition, there are 14 bus stops (Line 3) on the national road number 3 and 4 bus stops on Russian Blvd. The distance from the nearest bus stops to the residential areas of persons with disabilities ranges from 800 meters to 2.9 Km as shown in Figures 6 and 7.

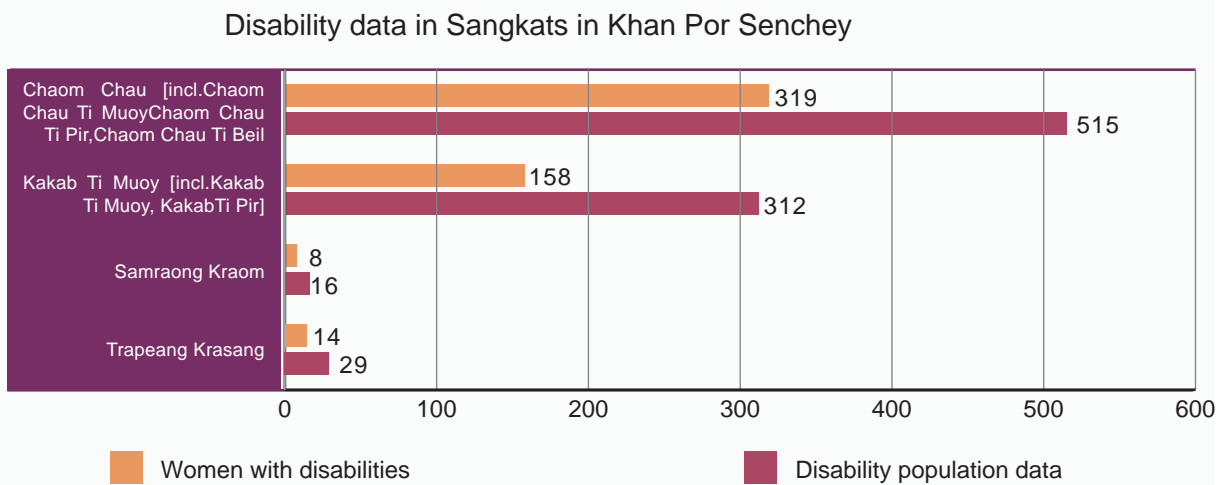


Figure 6: Disability data in Sangkats in Khan Por Senchey

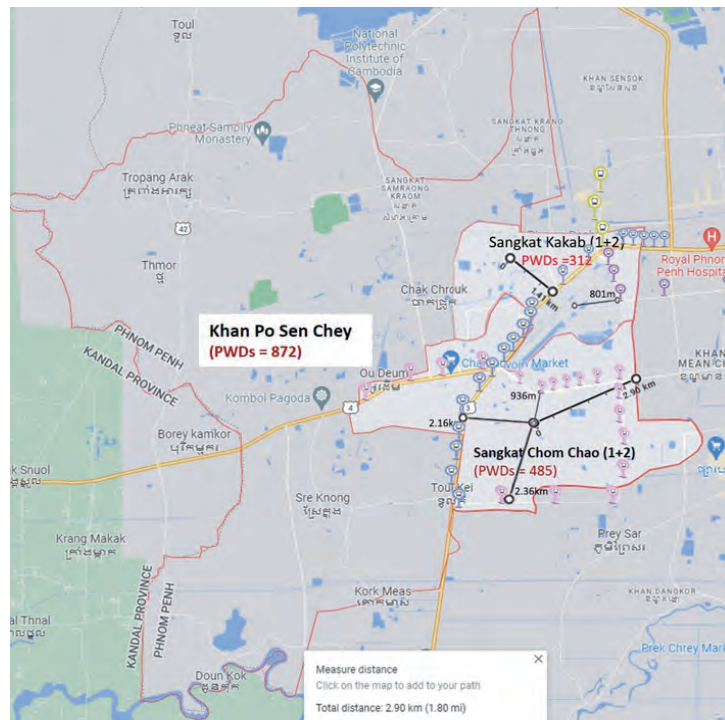


Figure 7: Two Sangkats have the highest number of people with disabilities in Khan Por Senchey

Mapping of the current living areas of persons with disabilities and the poorest communities in Phnom Penh

According to the 2015 ID Poor Assessment in Phnom Penh, the average poverty rate in the city was 9.9%. Khan Chbar Om Pov and Khan Prek Pnov shared the highest poverty rates in Phnom Penh. In these Khans, Sangkat Chbar Ampov Ti Pir, Sangkat Prey Thmey, and Sangkat Prek Pnov had the poorest areas with rates > 21%. Sangkat Veal Sbov and Sangkat Kok Roka had 15-20% of poverty rate as shown in Figure 8. Similarly, the highest number of persons with disabilities live in Chbar Ampov (1,156), Prek Pnov (1,019), and Por Senchey (872) as shown in Table 1 below. Therefore, Khan Chbar Ampov, Khan Prek Pnov, and Khan Por Senchey are the most concerning areas since they are clarified as the poorest areas and have the highest number of residential areas of persons with disabilities. The vast majority of persons with disabilities are vulnerable so most of them may live in the poorest communities. Disability and poverty are inter-related. For instance, among 4,304 persons with disabilities through self-collected data, 68% are unemployed and 36% illiterate, based on the CDPO's observation in 2019. The study on Disability Data Application (DDA) also notes that 37% have difficulties accessing transportation (CDPO, 2019). Disability can increase poverty, and being poor can increase chances of having a disability and reduced accessibility to vital services.

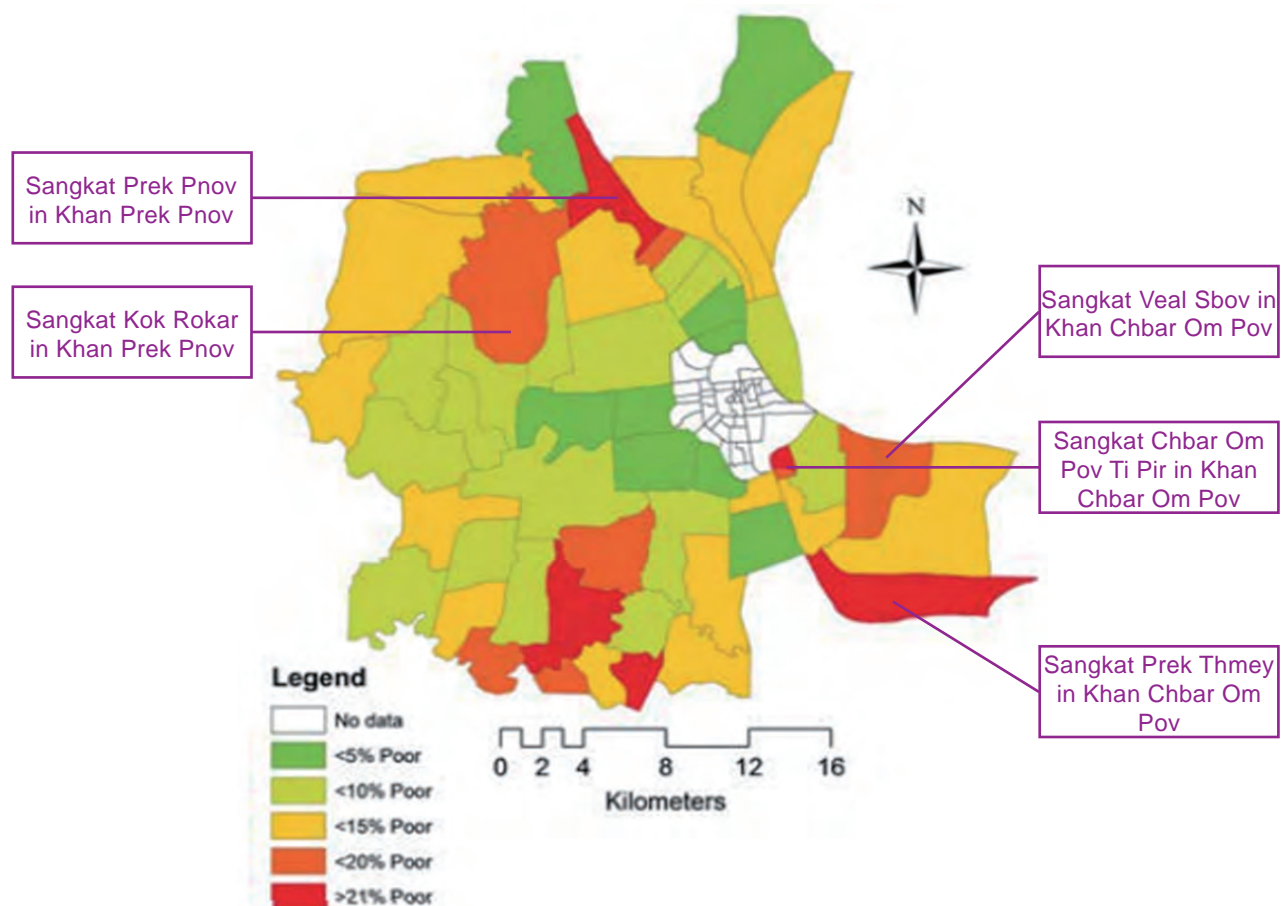


Figure 8: Map of ID poor in Phnom Penh 2015

Table 1: Data population of people with disabilities in Phnom Penh

Data population of people with disabilities in Phnom Penh					
Name	Population	Disability population data	Women with disabilities	Percentage of PWDs	Percentage of Women with disability
Sources:	Census:3/3/2019	PoSVY July 2022	PoSVY July 2022	-	-
1.Boeng Keng Kang	66,658	203	93	0.30%	45.81%
2.Chamkar Mon	70,772	77	30	0.11%	38.96%
3.Chbar Ampov	164,379	1,156	1,208	0.70%	104.50%
4.Chraoy Chongvar	159,233	827	426	0.52%	51.51%
5.Dangkao	159,772	803	479	0.50%	59.65%
6.Doun Penh	155,069	268	123	0.17%	45.90%
7.Kamboul	75,526	382	150	0.51%	39.27%
8.Mean Chey	248,464	414	212	0.17%	51.21%
9.Praek Pnov	188,190	1,019	453	0.54%	44.46%
10.Prampir Meakkakra	71,092	269	146	0.38%	54.28%
11.Pur Senchey	226,971	872	499	0.38%	57.22%
12.Russey Keo	274,861	258	127	0.09%	49.22%
13.Saensokh	182,903	760	300	0.42%	39.47%
14.Tuol Kouk	145,570	285	137	0.20%	48.07%
Total	2,189,460	7,593	4,383	0.35%	57.72%

The Phnom Penh authority should take these areas into consideration to provide public transport services that enable poor people and persons with disabilities to commute from their residences to other facilities in the city or surrounding areas such as universities, schools, hospitals/health centers, supermarkets, playgrounds, banks, and so on. The accessibility of public transportation and the availability of the city bus are essential elements in addressing the access to urban economic centers and other services.

3.3 Focus Groups Discussion on Donation Scheme and JAT assessment

The focus group discussions (FGDs) were conducted to identify opportunities and potential gaps in the donation frameworks for persons with disabilities in relation to the public transport system in Phnom Penh. The outcomes of the 3 FGDs with 16 participants together with information from the regional consultants on the policy review helped the researchers to understand the donation scheme. A summary of the findings from these interviews is below:

It was initially planned that the review of the bus donation scheme would start with a review of relevant documents. However, there were no documents available on the bus donation scheme. Two in-depth interviews were conducted with two key donors/agencies (JICA and Chinese embassy) that supported the CBA and donated the buses, and 3 FGDs were conducted with the CBA management staff, bus drivers, and the relevant key ministries which work on public transport and disability. The section below reports information collected in several focus groups (although in some cases there was only one participant, so they were effectively in-depth interviews). The participants were grouped into two in-depth interviews with donor country representatives; government agencies concerned with social and disability aspects; and government agencies concerned with transport. There was also some information from the bus driver focus group mentioned in the previous section.

Bus driver focus group – issues relevant to bus donation

The bus drivers were asked if they were aware of which buses they were driving and what they thought of them, in relation to passengers with disabilities. They were quite familiar with the differences between the Japanese and Chinese buses, stating that the Chinese buses had a lower floor and more room. These characteristics made them better for passengers with disabilities. It was mentioned that the Japanese buses might be stronger, but otherwise, the discussion focused on the Chinese buses.



Figure 9: A woman accessing a bus that was donated from Japan

Donor country in-depth interviews

The bus donation scheme involved the donation of 80 buses from Japan and 100 buses from China. The Japanese representative was from JICA, and it was not clear whether they had any involvement in the donation. They described JICA's structured approach to aid and detailed indicators. When the challenges of having buses accessible to people with disabilities were mentioned, the representative indicated JICA's willingness to look at the universal design or adopt some designs based on the Cambodian national guidelines on accessibility and also to consult with government agencies and non-governmental organizations.

In response to a question about gender, the representative focused on bus staff, not passengers, noting that there had been only two female drivers and now there was one. JICA has a platform for the working group and each platform contains policies and guidelines. JICA commits to report the number of passengers by gender, or the number of staff engaged or training in the project.

The Chinese representative knew of the donation of 100 buses by Zhengzhou Yutong but noted that he was not involved with the donation and was not familiar with the technical aspects. However, he had personal knowledge of the difficulties of people with disabilities accessing buses through the experiences of a friend. He was aware that there was a view that the Chinese buses were better suited to the needs of people with disabilities, but suggested this may not have been deliberate on the part of the Chinese, simply that Chinese buses are built to be disability inclusive already. An important message he conveyed was that the Cambodian government should make clear proposals for aid, by which he appeared to mean that, if the Cambodian government wanted buses with good disability access, they need to specify it clearly from the outset.

Ministry of Social Affairs and Disability Action Council¹⁰

This FGD involved one participant from the Ministry of Social Affairs and two from the Disability Action Council (DAC). Much of the discussion was not relevant to the bus donation scheme but provided insights into the broader context of policy and regulation. These key informants are in charge of the disability sector and promulgate the Law on the Protection and Promotion of the Rights of Persons with Disabilities. They provide technical advice on disability issues; develop the National Disability Strategic Plan; promote the implementation of policies, strategic plans, legal documents, and international instruments related to disability issues, and monitor the implementation. It was stressed that even though there is legislation to require disability access and inclusivity (based on international covenants), in practice accessibility is approached in a soft way. This means encouragement through the voluntary provision of infrastructure and other measures rather than imposing mandatory guidelines. Actual accessibility to public transport was acknowledged as limited.

Ministry of Transport and Phnom Penh Bus Authority

This FGD involved four participants from the Ministry of Public Works and Transport and from the Phnom Penh Bus Authority. Consistent with the soft approach noted in the previous focus group, they described a process of gradual implementation. They mentioned a number of possible future initiatives, not directly relevant to this report.

10. DAC was established by RGC in 2009. The DAC acts as the national coordination and advisory body on disability and rehabilitation and is a cross-sectoral body composed of ministries, institutions, representatives of the private sector, NGOs, and representatives of persons with disabilities.

While they were aware that buses could be better designed for people with disabilities, such as having low floors, they said that the policy focus in Cambodia on people with disabilities was mostly on those who were missing limbs, presumably from land mines.

They noted that there are many practical difficulties in providing accessible bus stops. On the subject of the better provision of advice to travellers at bus stops, it was stated that an information initiative using ITS may be piloted.

Towards the end of the focus group, there was some direct discussion of the difference between the Chinese and Japanese buses. While the Chinese buses were acknowledged to make more provisions for passengers with disability due to the low floors and greater space, they had fewer seats than the Japanese buses (27 vs 35). This points to the possibility that decisions are influenced by the economic return per bus.

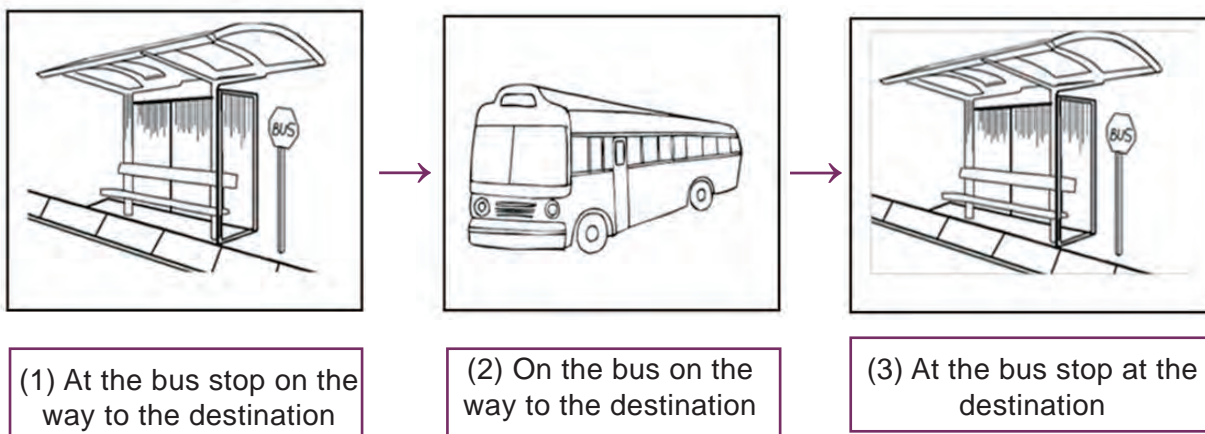
Overall, the bus authority staff were aware of possible solutions to travel by passengers with disabilities that they had observed overseas but were not in a position to finance them in Cambodia. They noted the need for donor aid and private sector investment (which would again come back to economic return).

This suggests that there is an important role in government negotiations with aid donors for buses and bus infrastructure that address accessibility and inclusivity. The global best practices on disability inclusion and accessibility in public transport must be taken into consideration in the early design stage of every project.

Co-design and revision of JAT

Following discussions with the research team, consideration of the recommendations of a previous HI project on the JAT, and the requirements of the JAT for this project, a revised JAT was developed: Brief JAT – Stops and on Transport. Unlike the original JAT, the walking route to and from the bus stops was not included for consideration, and additional questions were added to cover accessibility/inclusion issues on the bus, including gender-related issues.

In using the Brief JAT there are three points where questions should be answered and details recorded:

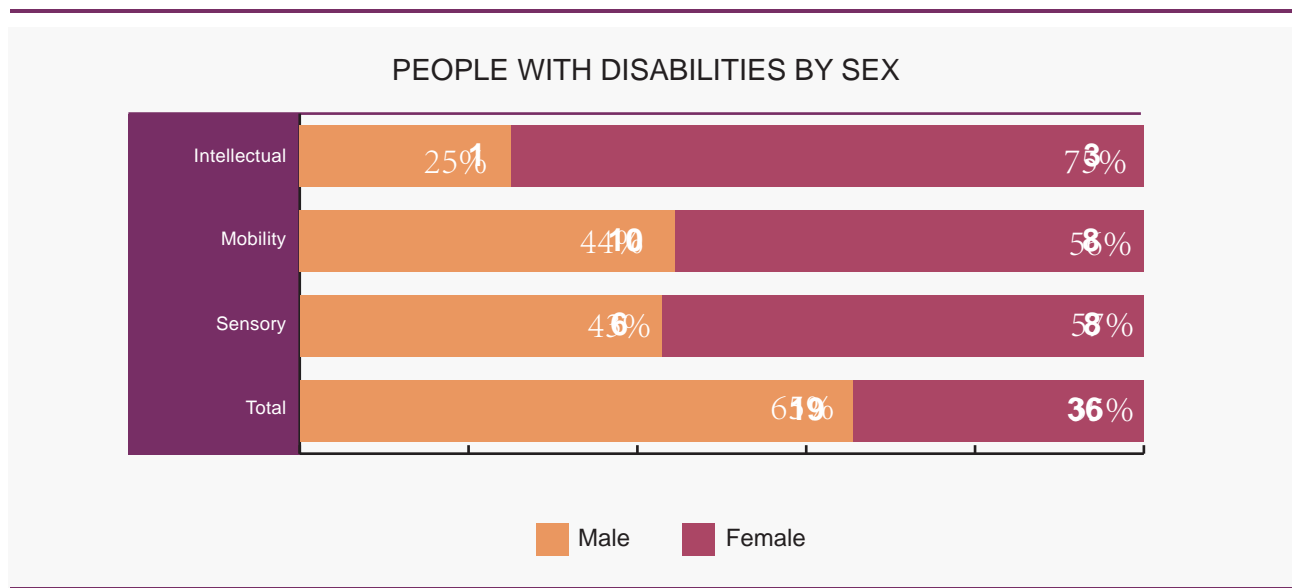
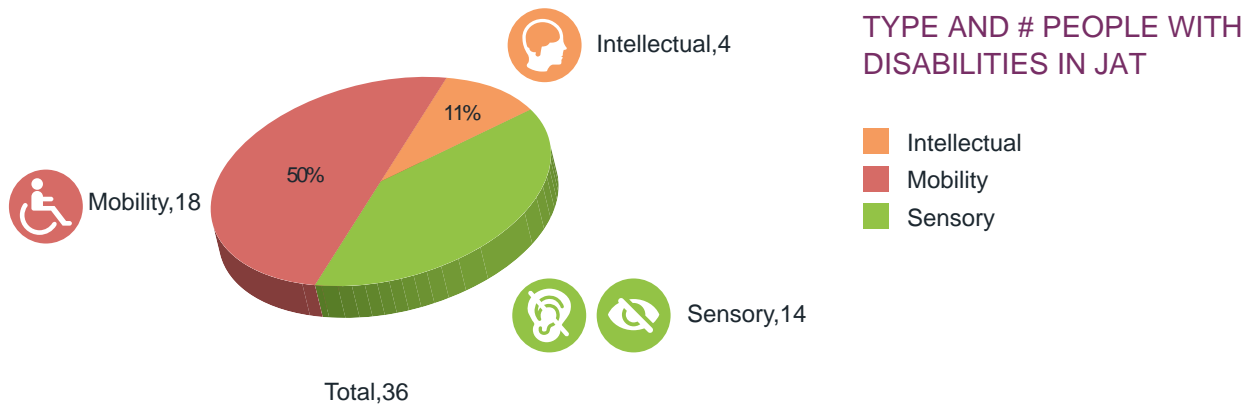


A training presentation was prepared for the JAT teams, and delivered in January 2022, in preparation for use of the JAT on bus trips in February. The trips involved groups of participants and assistants who filled out a paper version of the JAT. Four participants also made brief video notes. Following the trips, three focus groups involving participants in the JAT were conducted at the HI office in Khmer, with one of the consultants facilitating discussion via an online link and an HI staff member translating. One hearing impaired participant with a sign language interpreter was present.

The sections below describe the participants and then provide the main findings that emerged from the JAT exercise based on the forms filled out at the time, followed by a description of video notes made by four participants and the findings of JAT.

JAT participants

The JAT was undertaken in February 2022 (daytime) and March 2022 (nighttime) with 8 groups (4 groups during the day and 4 groups at night). 36 persons with disabilities (19 female, 17 male) participated, with various types of disability represented (4 intellectual disability, 18 mobility, 14 sensory). 19 participants were involved in JAT reviews of one of four different routes during day-time, and the other 17 were involved in JAT reviews of one of four different routes at nighttime. The demographics of participants are shown in Table 2 below.



Taking into account the relatively small numbers, the distribution of gender across types of disability was reasonably similar. Participants with mobility disabilities had the highest levels of education, followed by those with sensory disabilities.

Table 2: Demographics of participants

Demographics	Type of Disability			Total (n=36)
	Intellectual (n=4)	Mobility (n=18)	Sensory (n=14)	
Female, n (%)	3 (75)	10 (55.55)	6 (42.86)	19(52.78)
Education, n (%)				
Bachelor	0	7 (38.89)	3 (21.43)	10 (27.78)
High School	2 (50)	5 (27.78)	6 (42.86)	13 (36.11)
Primary School	1 (25)	5 (27.78)	3 (21.43)	9 (25.00)
No formal education	1 (25)	1 (5.55)	2 (14.28)	4 (11.11)

JAT responses at the bus stop

Some participants said that they felt comfortable waiting at the bus stop because it has a roof and available seats. However, the majority of participants complained that the physical infrastructure is not accessible (no information board, accessible ramp) and not convenient for persons with disabilities. For instance, the edge of the road is too high, so persons using a wheelchair could not navigate it without assistance.

Even though some bus stops have shelters, it is observed that the shelters are not big enough and the roofs are damaged. ***“It is wet if it is raining, and it is hot if it is daytime”*** said one participant. Another barrier is that motorcycles, rickshaws, or food carts always park at the bus stop and block the entrance, so persons with disabilities find it difficult to get through to the waiting areas. In some cases, there is a bad smell at the bus stop because of rubbish; no trash bin is available at the bus stop.

Persons with sensory disabilities found it difficult to identify the bus stop or could not recognize the bus stop without assistance since they could not have access to the information board or there was no accessible device installed for them. ***“It is difficult to identify a bus stop. When***

I reach the bus stop, I cannot notice it even though I touch it to identify it,” said one participant.

The bus schedule was not considered reliable as some participants were waiting for a long time to catch the bus and other buses did not show up.

No light or inadequate lights are available at most bus stops, so it makes persons with disabilities worried about their safety. At some bus stops, persons with disabilities could not move or have access to the shelter easily. They found the stops unsafe because of the rough surface of sidewalks, and frequent holes. Among comments, it was noted that ***“The bus stop is full of sand so it is hard for a wheelchair”***.

Seats are available at the bus stops but they may be not enough if there are many passengers.

Only four participants claimed that the height of the seats in the bus stop is not suitable for them, being either too high or too low.



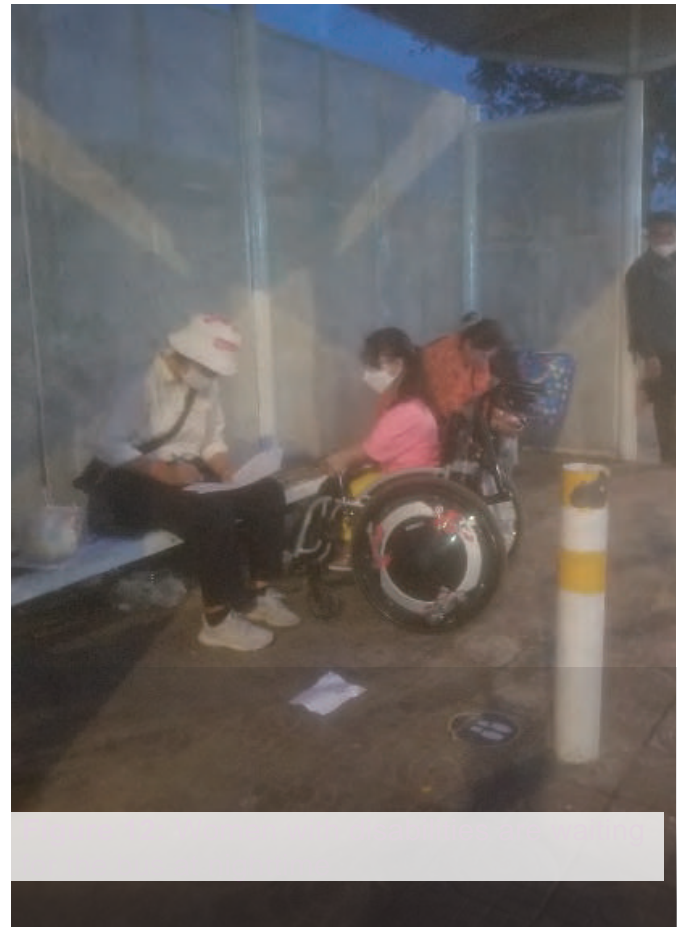
Figure 10: The bus information board at bus stop



Figure 11: Passengers waiting for bus at bus stop

More than half felt frightened and scared at the bus stops especially at night because of no lights, no security camera, and the long waiting time. “...***It is quiet at night because there are few people at the bus stop and a long time is needed for waiting for the bus.I felt worried and scared about addicts, thieves, or crooks while I waited for the bus***”, said one participant. No lights are installed at some bus stops and there are no security cameras at bus stops.

16 females with disabilities said that they felt unsafe and scared of being abused or robbed especially at nighttime. “***I felt frightened because of nighttime***” said one participant. Three females with disabilities thought that they were safe at bus stops; one had experience using the bus before and another believed that it is safe because there are many people around at the bus stop.



Access and on board the bus

The assessed buses all have steps. Some participants had no problem with this, but others found the steps too high for them and with no handrail to provide assistance. Participants also complained that no one helped them to get on the bus. There is no accessible ramp from the bus stop to facilitate their entry to the bus. Some buses have bus assistants but most have only drivers, so it is hard for people with disabilities to request assistance when boarding. Most participants needed assistance to get on the buses, and one noted that they “***felt scared because there is no one there to help***”.



Figure 13. Passenger who use a wheelchair is boarded

On the bus

Most buses do not have space to store wheelchairs. Persons with disabilities have to put their wheelchairs next to their seats where there is only the narrow space of the corridor, which causes inconveniences to other passengers. ***“I am afraid of other people complaining”*** said one participant. Another participant said the bus is not designed for persons with disabilities. 22 participants said there was no service information provided in alternative forms such as Braille or audio on the bus. One person with disabilities felt stressed while they were on the bus but their wheelchair was not yet on the bus.

No seats are designated for persons with disabilities. One participant claimed that he/she needed to stand when the bus was full, so it seems there is a lack of knowledge among other passengers that they should give priority to persons with disabilities for seating. ***“I feel embarrassed that there is no place to sit, and I walk back and forth without knowing where to sit”*** said one participant. Even though some participants were happy with the seats on the buses, others complained the seats were narrow and had no handrail/armrest.



Figure 10: A woman is sitting on her wheelchair on the corridor in the bus

De-boarding

Few buses have ways for participants to inform drivers where they want to get off. There is no landing pad when de-boarding. There are bus stops, but the barriers for persons with disabilities were found similar to the bus stops before boarding.

Public Transport Staff

Most participants said that public transport staff does not provide assistance to them when it is necessary. **“It was difficult to board the bus while the staff did not assist me, for example, stepping onto the bus....I felt unhappy about no assistance.”** Most participants believed that gender does not affect the amount of assistance provided for persons with disabilities. “It is not related to gender maybe the staff does not know I am a disabled person.” Most participants observed that the bus drivers are willing to stop for them. This signifies that the drivers identify them as normal passengers, even if they are female with disabilities/persons with disabilities.

It was observed that most drivers, but not all, provided enough time for participants to get on the bus. Some bus drivers were reported to show a bad attitude towards persons with disabilities. One respondent said they **“...blame me like I am not a human being”**.

Summing up barriers to travel, most participants felt the journey was difficult because they found it difficult to get on the bus, no information board was available, the bus number was too small, there was no dedicated seating for persons with disabilities on the bus, no accessible ramp, there was a long wait to catch the bus, they did not know where to get off, the bus staff discriminated against disability, they did not have enough time to prepare to get off, the bus stop areas are dirty with rubbish, there is often no assistant on the bus, and the steps are too high.



Figure 15: A city bus staff helps a woman who uses a wheelchair de-board from a bus.

Table 3: Barrier types mentioned in each phase

At the bus stop
The physical infrastructure is not accessible e.g., no information board, accessible ramp
The edge of the road is too high, the floor is uneven and damaged, so persons using a wheelchair could not move on
Motorcycles, rickshaws, or food carts always park at the bus stop and block the entrance
The shelters are not big enough and the roofs are damaged
Persons with sensory disabilities difficult to identify the bus stop or could not recognize
There was no accessible device installed for persons with sensory impairment
Some bus stops do not have information boards and if available they use small print and have no braille version
The height of the seats in the bus stop is not suitable
No light or inadequate lights are available at most bus stops at nighttime
No security camera, and the long waiting time
Females with disabilities felt unsafe and scared of being abused or robbed especially at nighttime
The bus stop areas are dirty with rubbish
Access and on board the bus
The steps of the bus were too high and with no handrail
Some persons with disabilities complained that no one helped them to get on the bus
No accessible ramp to access the bus from the bus stop
Most participants needed assistance to get on the buses but they are afraid to ask for support
The bus number was too small
On the bus
Buses do not have space to store wheelchairs
Buses are not designed for persons with disabilities
No service information is provided in alternative forms such as Braille or audio
No seats are designated for persons with disabilities
Seats were narrow and had no handrail/armrest
Do not know where to get off and not have enough time to prepare to get off
There is often no assistant on the bus
De-boarding
There is no landing pad when de-boarding and no accessible ramp to get off the bus
Public Transport Staff
Some public transport staff does not provide assistance
Some bus drivers show a bad attitude toward persons with disabilities

Video notes

Four participants made brief video notes of their experiences. Each note was 1-2 minutes long and mostly focused on the bus stops, where they illustrated the same issues mentioned above: limited seating, exposure to the weather, rough surfaces, blocking of the stop by parked vehicles and vendors, crowding, and blocked access to the stop from paths. The brief on-board video footage illustrated the lack of wheelchair storage and the consequent blocking of the corridor with a wheelchair.

Focus groups following the JAT

One of the limitations that emerged was that a majority of the focus groups almost never took the bus, with the JAT trip being their only (or almost only) trip. Three focus groups of participants in the JAT trips were conducted a few months after the JAT. The focus groups had initially been planned immediately after the trips, however, pandemic restrictions interfered with this plan. The focus groups involved about 18 participants.

It was clear from the discussion that bus stops present problems for all participants, with some of the issues being common across all types of disabilities, while others were more specific to particular disabilities. For example, the lack of braille signage and audio information was a major issue for people with visual disabilities, but not for others. The common problems were those also noted above in the JAT reports and the video notes.

Experiences on the bus were more clearly different for people with different kinds of disabilities, to the extent that for two participants there were no problems: the participant with a prosthetic leg, for example. Wheelchairs presented several difficulties, including access to the bus (being carried on board), lack of storage, and lack of ways of signaling to the driver to stop at the next stop. The latter involved a combination of where a buzzer button was located, and whether it could be manipulated by the participant.

The focus group participants were asked about gender issues, specifically whether or not passengers and bus staff were more or less likely to treat women with disabilities differently from men. In all groups, it was felt that women were less likely to be assisted because of the reluctance of men to make physical contact with them. Given that there are almost no female bus drivers or assistants, this is a problem, and in one group it was suggested that more female bus staff should be employed. Passengers also help people with disabilities to board and leave the bus, but the same reluctance to make physical contact with women was mentioned, as were negative experiences, with passengers responding negatively to them. Better public education was suggested.

On the positive side, the fact that public transport is free for people with disabilities was considered good, and the impression was given that if there were more routes, more of the participants would be traveling by bus.

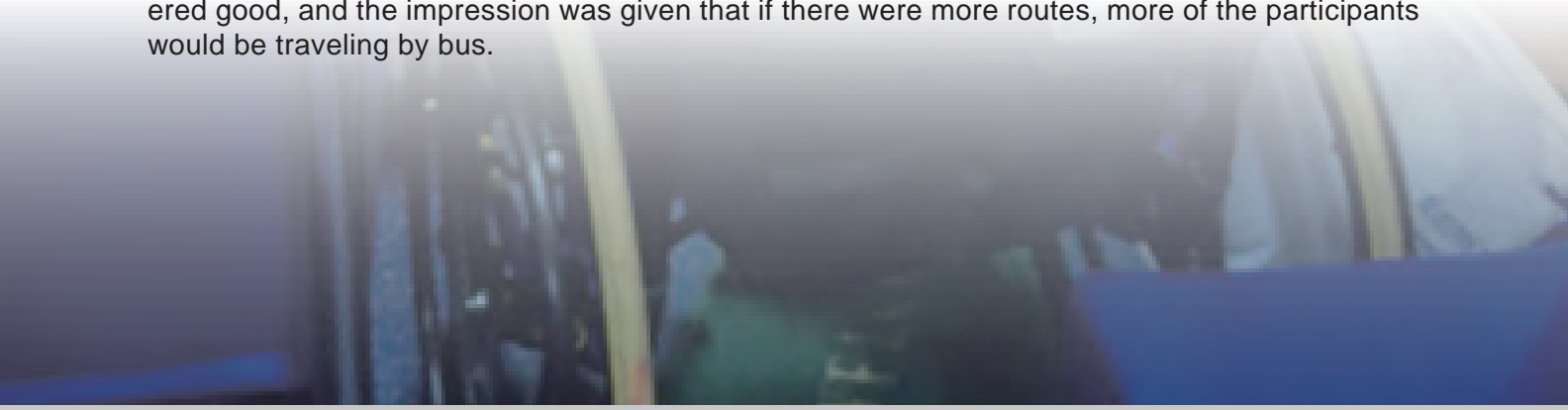


Figure 16: A man is sitting on his wheelchair on the narrow space on the bus



Bus driver focus group

In parallel with the above focus groups, another group involving only bus drivers was conducted, though not all had been involved with the JAT trips. Some of the discussion concerned the donation scheme and is mentioned in the next section. They were also asked about their experiences with passengers with disabilities.

They mentioned some of the problems with bus stops that came up in the other focus groups, that have particular relevance to drivers: the blocking of access to bus stops by parked vehicles and vendors.

It was mentioned that picking up people with disabilities involved more delays, as they are slow to board, and the driver must wait until they are properly seated before starting again. This was particularly a problem for wheelchair users. Once on board, they noted that people with visual disabilities needed to be asked about where they needed to stop.

All drivers claimed to personally help people with disabilities to board and generally believed other drivers and assistants also did, which contrasts with the experiences reported in the other focus groups of buses not stopping if they saw it was a passenger with a disability.

They also saw helping women with disabilities to board as a problem, so they tended to look for female passengers to provide help instead. They felt that passengers were generally helpful, which is also not the same as reported in the other focus groups.

Among improvements they thought could be introduced on buses were buttons that people with disabilities can press, and help from bus assistants.



Figure 17: A city bus staff helping a passenger with a disability to get on the bus.

IV.

Validation Workshop



IV. Validation Workshop

The objective of this workshop was to present the findings from the JAT assessment of the City Bus and donation scheme and to get validation from the key stakeholders. The validation workshop brought together 18 participants (2 from The Foundation, 3 from HI, 2 from the research team from Australia, 3 from CBA, 2 from the Ministry of Social Affairs, 2 from Disability Action Council, 1 from the Ministry of Public Works, and Transport, 1 from Phnom Penh Department of Public Works and Transport, 1 representative from Organization of People with Disabilities, and 1 representative from JICA). All participants agreed on the findings and aspects and provide suggestions below:

- ☉ Donor representatives felt that the best approach by Cambodia would be to specify that buses need to meet disability access requirements; this might be satisfied by existing bus designs in the donor countries
- ☉ The donors thought of gender in relation to bus 20drivers rather than the issue of assistance
- ☉ Cambodian authorities described a soft approach to the implementation of regulations on disability accessibility and inclusivity – encouraging voluntary compliance rather than compulsion
- ☉ Much policy is aimed at limb loss disability rather than other forms
- ☉ The Chinese buses were considered better for disability, but they had fewer seats than the Japanese buses (27 vs 35) so there may be an economic implication. This points to the possibility that decisions are influenced by the economic return per bus.
- ☉ Cambodian authorities are aware of many features and new developments in buses overseas, but see donor assistance as the only opportunity to improve the Cambodian bus fleet.
- ☉ Perspectives of the bus drivers noted that the Chinese buses were better suited to people with disabilities because of lower floors and greater space.
- ☉ The bus donation is not just a matter of the buses, what the bus looks like, the overall traffic system, the consideration of the whole direction of the transport context, whether the bus is suitable for the road in Phnom Penh, pavement condition, and access to the bus stops.
- ☉ Accessibility requires a cross-sectoral approach that includes people with disabilities involved in the conversation around buses, infrastructure, and maintenance of the urban environment to ensure that suitable buses and persons with disabilities can access it.



- ☉ Consultation with people with disabilities or the engagement of the Organization of People with Disabilities in the design stage of any project development such as public transportation service is needed.
- ☉ All stakeholders should work together to develop public transportation policy, frameworks, legal instruction, and mechanisms to address the barriers to the public transport services such as the city buses.
- ☉ The standards of accessibility that are mentioned in guidelines or Universal Design should be considered and included in the project development.
- ☉ The Phnom Penh city hall has the power to make the decisions and to make the public bus transport project more accessible to people with disabilities.



Figure 18: A man who uses a wheel-chair is accessing the entrance of the bus donated by Japan



Figure 19: A woman sitting on her wheelchair in the bus donated by China

Recommendations

V.

Discussion and
Recommendations

Discussion and

V. Discussion and Recommendations

Discussion:

The majority of public transport systems in Cambodia are not accessible to people with disabilities (Cambodia: Ministry of Health 2007), even though they are entitled to free public transport. As a fare policy by the City Bus Authority, the city bus service is free for specific groups of bus users including students, children (below 1m height), elderly (70yrs and over), monks, garment factory workers, teachers, sports athletes, and people with disabilities. The Law on the Protection and the Promotion of the Rights of Persons with Disabilities 2009 was passed to increase the accessibility of transportation for people with disabilities and meet international obligations under the UN Convention on the Rights of Persons with Disabilities (Kingdom of Cambodia: ratified in 2012). There is, however, little monitoring and enforcement of legislation, and, as a result, a limited amount of information available about disability and access to transport within these contexts (Kunieda & Roberts, 2006).

This report found that the main obstacles from the previous JAT assessments still hold true. The JAT assessment report in 2016 was based on the 3 pilot studies using the JAT in 2015. There are no accessible ramps at the bus stop to facilitate their entry to the bus because buses all have steps, so it is hard for people with disabilities to request assistance when boarding, and most participants needed assistance to get on the buses. Kleinitz et al (2012) observed that people in wheelchairs often have to be lifted onto motorcycles, and into rickshaws and buses, which may discourage individuals from using such methods of transport to access medical facilities. As an alternative to the use of standard public transport services, buses and taxis may be hired privately, however, they do not have the space required to accommodate wheelchairs and the cost may be prohibitive (Cambodian Disabled People's Organization, 2013). At the same time, the use of the roads and paths required to access public transport and services is rendered unsafe by dam-

aged, missing, or poorly designed infrastructure. Use of private, specially equipped vehicles is simply not an option for most people with disabilities in Cambodia.

A negative attitude toward persons with disabilities from others such as bus staff and passengers is still a problem. People with disabilities reported feeling ashamed and embarrassed when they are accessing public transport. These barriers were shown in the JAT assessment reports in 2016 and 2022. The discrimination directed at the participants echoes findings from the literature where transport staff discourage or prevent people with disabilities from boarding transport or may reject people with disabilities on account of the additional space they may take up with their mobility aids, for example wheelchairs or crutches (Battle, 2020; Emirie et al, 2020; Naami & Mfoafo-M'Carthy, 2020).

The bus stop infrastructure has a roof and available seats. However, the majority of issues complained about by participants were that the physical infrastructure is not accessible (no information board, no sound information for blind persons, no accessible curb ramp access to the bus stops, the pathway surrounding are broken, the edge of the road is too high, etc.) and not convenient for persons with disabilities. In low- and middle-income countries, such as Cambodia, urban environments are extremely difficult to traverse or navigate with infrastructure that is not inclusive, well maintained, or is deteriorating, leaving people with disabilities in fear or at risk, as highlighted above by the participants in this study (Emirie et al, 2020; Kibria et al, 2020; King et al, 2018; Naami & Mfoafo-M'Carthy, 2020; WHO ROSEA, 2020).

Lack of accessible information at the bus stop and on the bus is one of the major issues for people who are blind or have low vision as mentioned by most of the participants. There was no service information provided in alternative forms such as Braille or audio on the bus. People with sensory disabilities require information in a

format that they can perceive and understand and the same travel information to be provided in a range of different media, color contrast information, under foot tactile surface and audible beeps may be required. Research by DFIT indicated that access to information in appropriate formats- whether regarding accessibility, services, or fares was a significant barrier to travel for people with sensory and intellectual disabilities (Venter et al, 2004). However, the public bus services have also been upgraded with mobile applications such as “StopsNearMe” and “City Bus Official” apps. The apps provide limited information about the bus stops, available routes, and the real-time locations of buses running in Phnom Penh. With one’s current location on a smartphone, he/she can easily decide which bus stop is the nearest and which bus lines to transfer to in order to arrive at a specific destination (Chea Monykoran, 2021).

Recommendations:

The increasing proportion of people with disabilities in developing countries, coupled with increasing motorization, means that the challenges of making safe journeys to access services, employment, and social contact are likely to increase. The research includes the recommendation that a proactive approach should be taken to specify the Cambodian government’s expectations of a bus donation scheme, for which the following four aspects need to be considered:

- The characteristics of the bus in terms of accessibility, safety, and comfort;
- The characteristics of bus stops in terms of accessibility, safety, comfort, and provision of information
- The practices of bus drivers and other bus employees
- The distribution of bus routes/stops in relation to the places where persons with disabilities live

This implies that bus donation should only be pursued as one component of a broader program aimed at ensuring that the benefits of donated buses are maximized. Two main actors- namely bus donor(s) and Phnom Penh Autonomous Bus Transportation Authority- should have leading roles in implementing the following recommendations.

Donor(s)

Bus characteristics

The research indicates that, in general, donated buses should have comparable safety and service features to those used in the donor country. Therefore, by working with the bus manufacturers and discussing with Phnom Penh Municipal Administration, donor(s) should address the following needs in order to improve bus characteristics:

- Be easy to access and to de-board: width of the doorway, number of stairs, distance from the ground to the first step, handrails, etc.; availability of mobile ramp with handrail
- Have safe and suitable seating or docking: availability of handrails, padding of rails and seatbacks, free space/docking area for wheelchairs with accessible stop buttons, handrails, safety belts, seats designed for persons with disabilities

- Have auditory and visual information on upcoming stops
- Have storage facilities that are easily accessible for persons with disabilities
- Avoid having corridors blocked
- Balance in favor of accessibility and safety rather than revenue, e.g., better to have wider seats and less storage space

Phnom Penh Autonomous Bus Transportation Authority

Bus stop characteristics

Having buses that are accessible to persons with disabilities is only effective if it is easy to access the bus from bus stops, and easy to access the bus stops via paths. Therefore, Phnom Penh Autonomous Bus Transportation Authority should collaborate with sponsors to improve the bus stops to meet the following needs:

- Stops that have ramps with handrails to enable access to the stops,
- Shelter from the weather (sun and rain) and provision of trash bins
- A sufficiently large free space for people with mobility needs, and sufficient gaps between poles and other fixtures to enable unimpeded access
- Information available in a form that persons with disabilities can use (e.g., visual for people with hearing loss, auditory or Braille for people with visual deficit, etc)
- Safe, clean and secure, especially for women, with good lighting
- Connection with an accessible surrounding walking infrastructure, such as good quality paths that have sufficient width at all points and are kept clear of vendors, parking, and rubbish

Practices of bus drivers and other employees towards persons with disabilities

Persons with disabilities may need assistance to access buses, and women with disabilities may feel uncomfortable being helped by men. It is important that they do not experience negative attitudes or responses from bus staff and passengers. Phnom Penh Autonomous Bus Transportation Authority should collaborate with organizations of persons with disabilities to encourage bus use by persons with disabilities through the following activities:

- Training for bus drivers and bus assistants to interact positively, helpfully, and ethically with persons with disabilities
- Training for bus drivers and bus assistants to promote attitude of acceptance toward persons with disabilities and also among other passengers
- Making allowances for slower trip times on routes with a high proportion of persons with disabilities
- Recruitment and training for female bus drivers and assistants



Distribution of bus stops/routes in relation to persons with disabilities population

Bus routes need to pass close enough to where persons with disabilities live for them to be accessible. The Phnom Penh City, Bus Route Map in 2020 shows that the bus services are available from 5:30 to 20:30 daily. The bus headway ranges from 5 minutes to 20 minutes depending on bus operating routes. As a guideline (UNESCAP, 2019), it is desirable that bus stops are within 500-meter buffer zones around stations and bus stops with a 20-minute or more frequent scheduled service interval of where passengers live. If persons with disabilities are to benefit, routes would ideally pass close to areas with higher concentrations of persons with disabilities and connect with places they need to travel to, such as markets, employment, and health/support services.

Phnom Penh Autonomous Bus Transportation Authority should conduct route network planning that ensures bus routes are planned to maximize access to persons with disabilities in poorer areas.

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REPORT ON ACCESSIBILITY AND
DISABILITY INCLUSION ON THE PUBLIC
TRANSPORT SYSTEM IN PHNOM PENH