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Mobility Challenges of Physically- Challenged People (PCP) in Minna, Nigeria

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Abstract

The Physically Challenged People (PCP) are integral part of the society and they are expected to be considered in the overall planning and development of transportation system. This is usually not the case in many developing countries particularly Nigeria. This study therefore examines the mobility challenges of the disabled in Minna Metropolis, Niger State, Nigeria. Data were collected from both primary and secondary sources. A structured questionnaire was administered to 203 respondents (crippled and blind) in 4 major motor parks/terminals and designated bus stops along major traffic corridors where people with disabilities are concentrated. Descriptive statistics were used for data analysis. Findings revealed that 26.1% of respondents considered discrimination from general public as a challenge hindering their mobility, 14.8% considered waiting time at motor parks/terminals and bus stops as another challenge hindering their mobility in the city. Meanwhile, 37.4% of PCP considered the pedestrian walkways in the city to be in good conditions, 31.5% considered it to be in fair conditions while 1.5% considered it to be in an excellent state. On the types of disabilities, 58.6% of the respondents were crippled and 41.4% have visual impairment. The analysis of the causes of disability reveals that 50.7% of PCP have disability from birth, 31.5% of them are due to auto-accidents and 12.3% disabilities were due to factory accidents. In terms of access to public transport 66.5% of PCP do not have access to public transport while 33.5% have access. Based on these findings, the study recommends that PCP mobility needs should be integrated in the overall planning, design and development of transportation system of Minna and Nigerian cities in general so as to ameliorate mobility challenges experienced by people with disabilities in the country.

Key Words: Mobility, Physically Challenged People, Disabilities, Public Transport, Access

1.0 INTRODUCTION

Heiser (1995) defines Mobility Challenged people as the unnecessary marginalization of individuals from the existing forms of transport. Notwithstanding, meeting the mobility needs of people with disabilities is very important especially being the single, most prominent concern at all level of transport (DPTAC, 2002a). Accessible transport is the passport that enables people to live an independent life. Hence, Mobility means receiving transport

services, going where and when one wants to travel, being up-to-date about the services, knowing how to use them, being able to use them and having the means to pay for them (Suen & Mitchell, 1998). Research suggests that 13% of the populace experience mobility challenges in one form or the other, that is, they experience difficulties in accessing some or all modes of transport (Henderson, Jensen et al. 2002 & Mitchell, 1997).

An integrated transport system, including accessible public transport, barrier-free pedestrian environment and enabled paratransit is important in the socioeconomic inclusion of people with disabilities (Yigitcanlar et al., 2005, Lucas & Currie, 2012). Mitchell (1995) stated that, a transport system is accessible to the people with disabilities if by its physical design and its operating procedures, it can be used by people with disabilities without requiring them to do anything that their disabilities makes impossible. Hence, accessibility should include the meeting the mobility needs of all. Government or government agencies and non-governmental organisations should therefore consider the mobility needs of all when planning, designing and constructing transport infrastructure and when making transport policies.

But within the contemporary Nigerian society, the common perception, held by policymakers and the public at large, is that disabilities are viewed in terms of living on charity and benevolence of others. Consequently, this viewpoint is a significantly fundamental factor that seriously militates against the socioeconomic inclusion of people with disabilities within overall development of the transport system in the country. In addition, there is very little or no information about the level of considerations given to physically challenged people in the planning, design, development and operations of transport system in Nigeria. The mobility challenges faced by these vulnerable have not been fully investigated across the country. More study has to be done to ascertain the various constraints facing the movement of

physical challenged people most especially in urban centres in which Minna is not an exception.

The need therefore to investigate the nature, the characteristics and the reasons for mobility challenges of the Physically Challenged People (PCP) informs the basis for this research. This study is therefore aimed at providing information on the mobility needs and challenges confronting people with disabilities in Minna. This study would provide insightful information about people with disabilities in Minna also help in their advocacy for better treatment and mobility accessibility.

2.1 LITERATURE REVIEW

Virtually everyone will get old at some point in life; there are also people who are faced with mobility challenges caused by a number of factors, such as diseases or accidents. Others who live to old age will likely experience growing difficulties in functioning and vulnerability. The number of people with disabilities around the world is increasing at an unprecedented rate, not only in the developed/industrialized countries, but also in the developing countries, such as China, India and Brazil (Xiaowei et al, 2013).

A 2013 survey of over 5,000 people with disabilities representing over 126 countries conducted by the UN Office for Disaster Risk Reduction (UNISDR) found that only 20% could evacuate their living spaces without difficulty in the event of an emergency, highlighting the importance of mobility and accessibility during a national disaster (UNISDR 2013). Accessibility for people with disabilities does not only mean physical access to vehicles and systems. It includes information in forms that are usable by everyone, training of transport staff to understand the needs of people with disabilities, and design and layout of urban areas to enable people to move about safely and confidently.

Furthermore, the Sustainable Development Goals (SDGs) of 2030 Agenda make explicit reference to people with disabilities regards to ending poverty, good health and wellbeing in order to improve the economic growth, and sustainable cities and communities of which adequate and efficient mobility is the bedrock or foundation of these goals. The pace of disabled people is faster in developing countries than in developed countries, it is also clear that there is a strong correlation between old age and disability (WHO, 2011).

Ipingbemi (2015) on mobility challenges and transport safety of people with disabilities indicates that about 0.67% of the respondents were within the productive age group (labour force). This category of age group is supposed to be making an enormous contribution to the socioeconomic development of the country. In fact, most countries rely on this age group for their economic growth and development. There are over 3.5 million Nigerians who suffer one form of mobility challenges or the other, this was disclosed by Chikunie (2017), who said that the greatest challenge faced by people with disabilities who make up over 30% of the Nation's population is impediment in mobility which adversely leaves them to be a beggar wherever they find themselves.

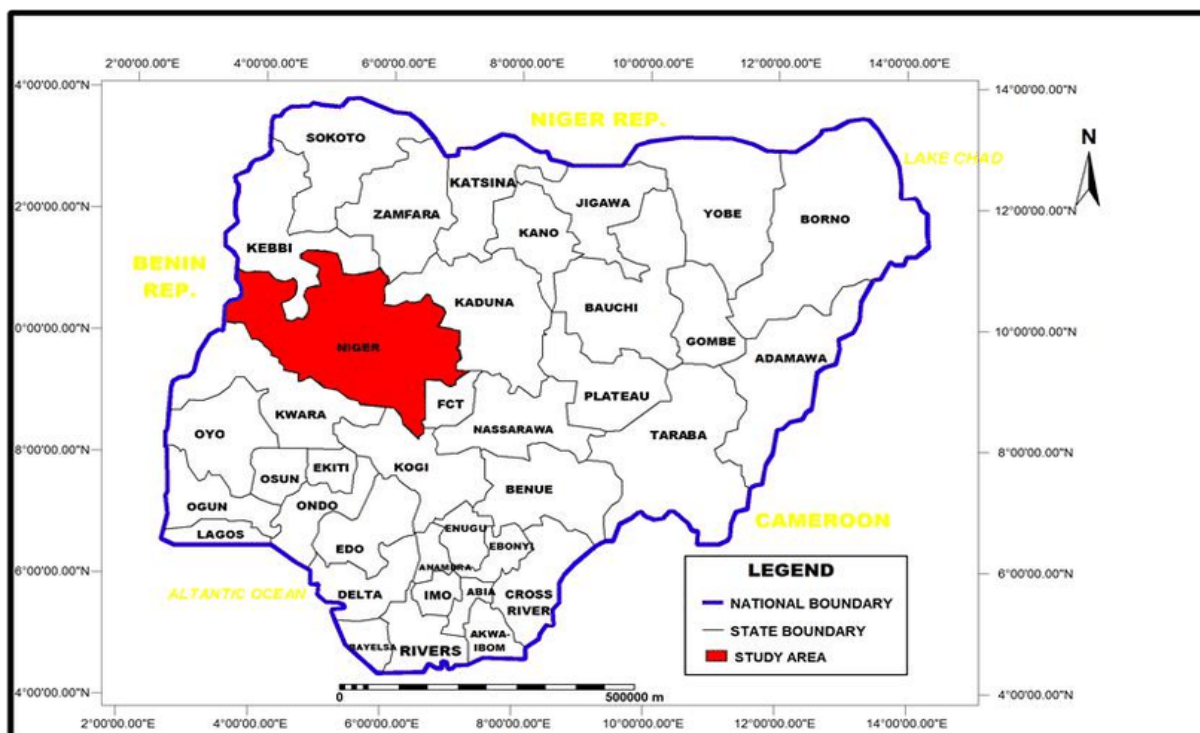
3.1 STUDY AREA

Minna is the largest city in Niger State which consists of Bosso and Chanchaga Local Government Area with an estimated population of 348,788 (SBS, 2011). The geographical coordinates are given as $9^{\circ}36' 50''$ North and $6^{\circ} 33' 25''$ East. It is the capital of Niger State and is 150 km away from the country's capital, Abuja. It consists of 2 major ethnic groups: The Nupe and the Gbagyi. Minna is connected to neighbouring cities by road. The city is served by Minna Airport as well. In terms of public transport, the major Motor Parks/Terminals in Minna are Mobile Motor Park, Abdulsalam Motor Park, Niger State Transport Authority (NSTA) Motor Park, Kpankunga Motor Park, Gwadabe Motor Park, Peace Mass Transit (PMT) Motor Park,

Kure New Market Motor Park and Minna central Motor Park while the Bus-Stops along the major traffic corridors in Minna are Tunga Bus-Stops, Mobile Bus-Stops, Kpankunga Bus-Stops, and Bosso Bus-Stops.

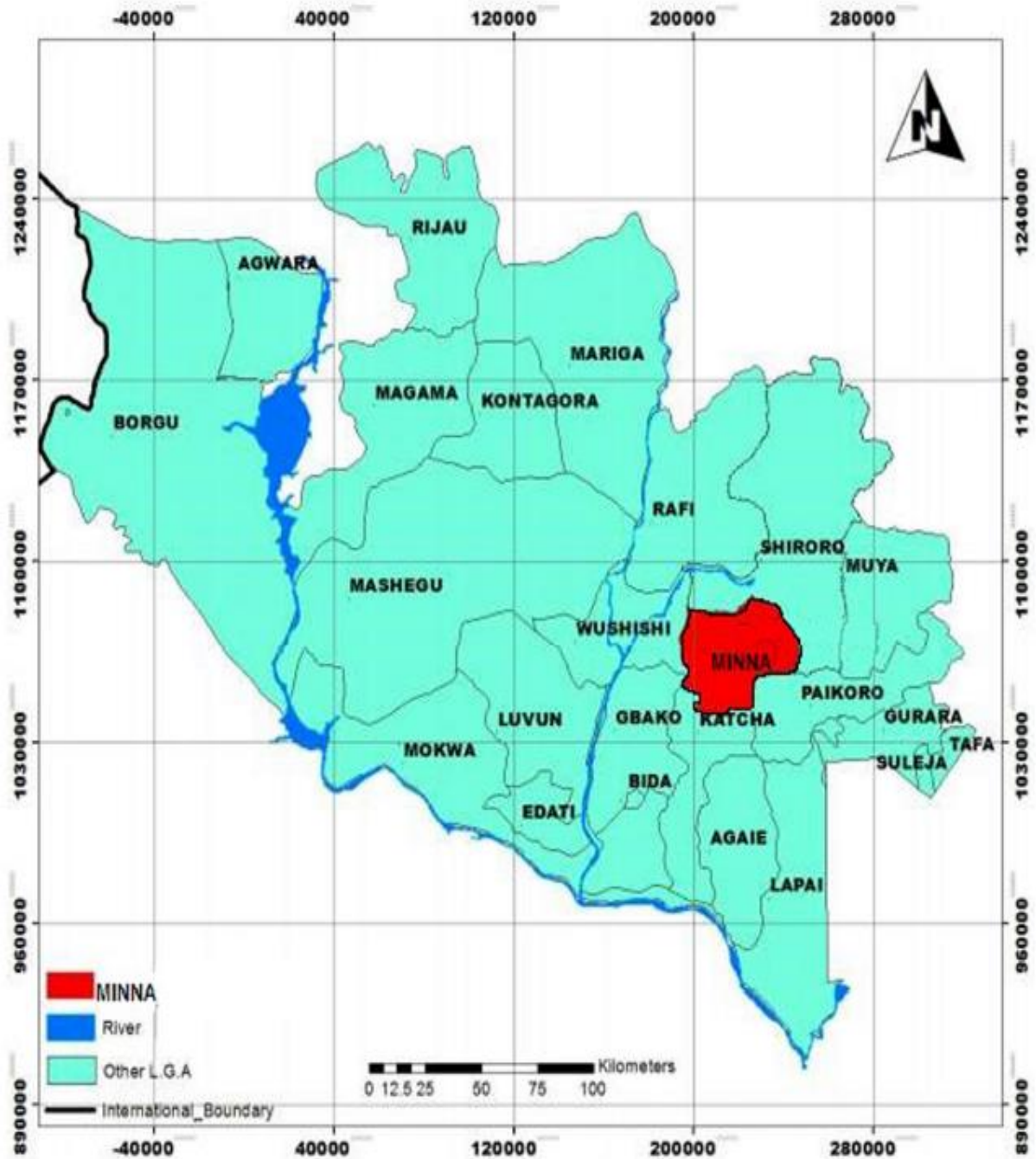
The most common modes of transportation in Minna is Road Transport. Motorcycles, buses, taxis, and tricycles are the most used carrying units for Mobility in Minna, Niger State. Although, motorcycle is the most flexible, which serves paratransit services (door-to-door) especially for people with disabilities, but it also appears to be the most dangerous in terms of the accident. It is the preferred mode of transport by many because of its ability to weave in and out of vehicles during traffic congestion.

Figure 1: Map of Niger State in the context of Nigeria



Source: Department of Transport Management Technology, FUT Minna (2018).

Figure 2: Map of Minna in the context of Niger State.



Source: Department of Transport Management Technology, FUT Minna (2018).

4.1 METHODOLOGY

A cross sectional survey approach from which data were gathered on the socio-economic and mobility challenges of physically challenged people was obtained from primary and secondary data. The primary data were collected through the administration of questionnaires

using purposive sampling technique and field observations. The questionnaires were used to gather information on the socio-economic characteristics of disabled residents and their travel challenges. Secondary data was gotten from the Niger State Bureau of Statistics, Niger State Ministry of Women affairs and Social Development and from online journals/publications. The study is not neighbourhood specific but city-wide, requiring a sample size for each motor parks/terminals and bus stops in order to make generalization about the entire city. In this study, selected motor parks/terminals and bus stop along major traffic corridor were taken out of the total number of motor parks/terminals and bus stops in Minna. The traffic corridors includes; Niger State Transport Authority, Abdulsalam Abubakar motor park, Kpakungun and Mobil for motor parks/terminals while the Bus stops include, Chachanga, Kpakungu, Mobil and Bosso. An estimated population of people with disabilities of about 203 sourced from Niger State Ministry of Women Affairs and Social Development, 2018 was used as the sample size.

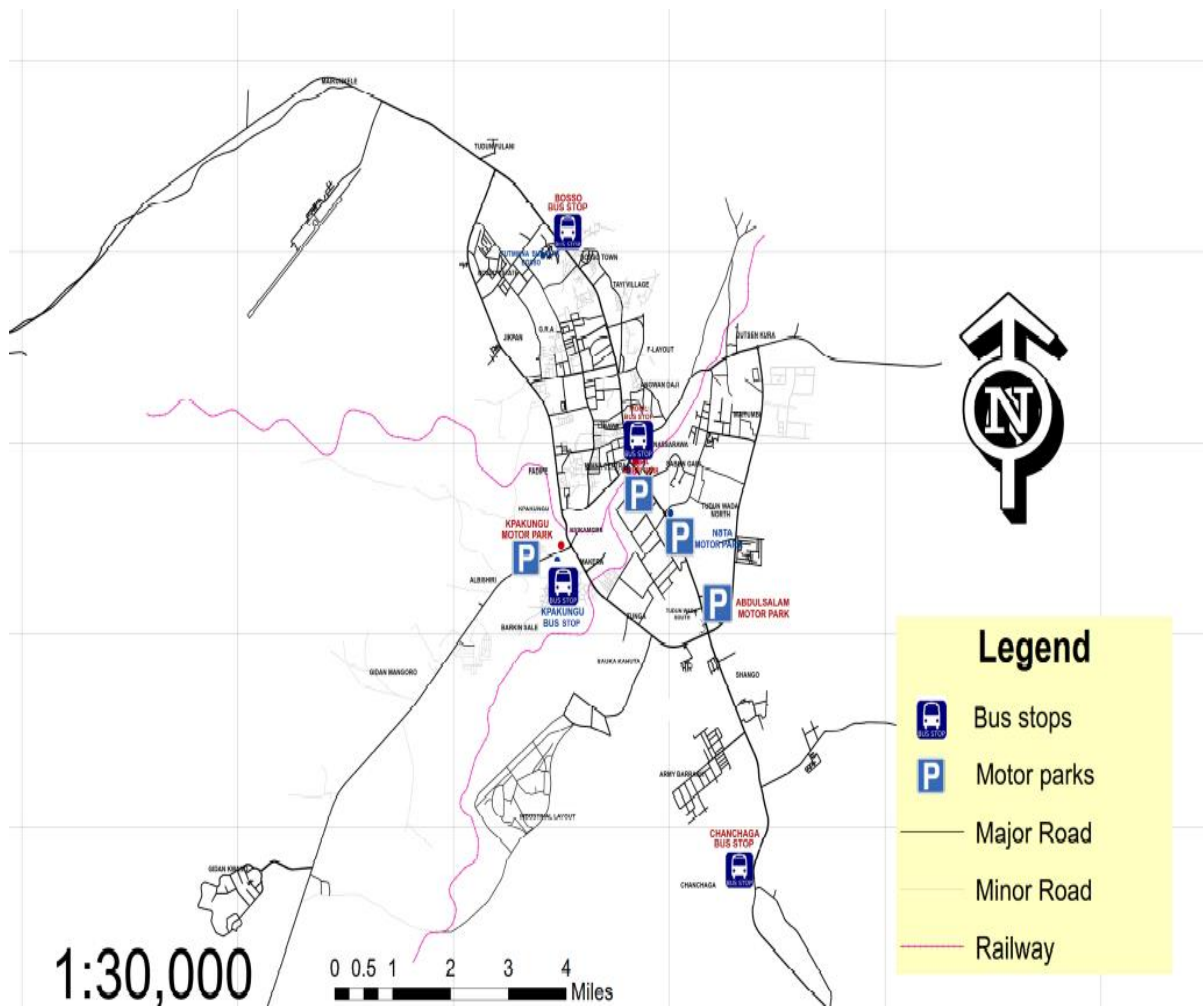


Figure 2: Street Guide Map of Minna Showing Selected Terminals/Motor Parks, Bus-Stops, Source: Authors Field Work (2018)

Table1: Method of questionnaires distribution and administration.

S/N	Motor Parks/Terminals	Sample Size	Bus Stops	Sample Size
1.	Niger State Transport Authority	34	Chanchaga	9
2.	Abdulsalam Abubakar	13	Kpakungu	21
3.	Kpakungu	39	Mobile	25
4.	Mobile	48	Bosso	14
	Total	134	Total	69

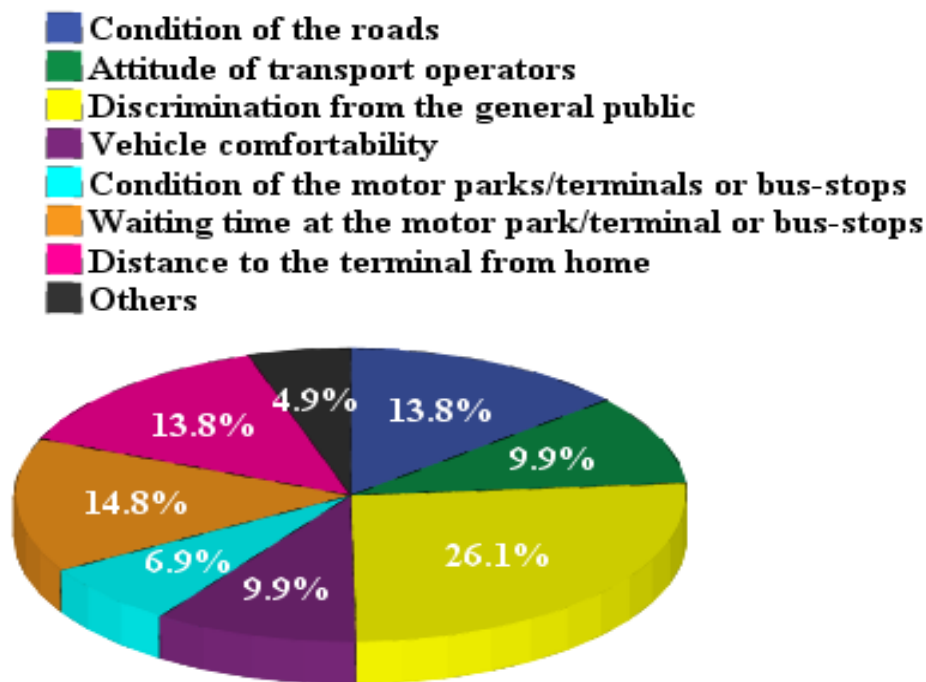
Source: Author’s field survey, 2018.

5.1 INTERPRETATION OF RESULTS

In examining the mobility challenges of people with disabilities in Minna, descriptive method of analysis was used to identify and describe the respondents form of disabilities, causes of disabilities, mobility challenges experienced by respondents, conditions of the pedestrian lanes was considered, access to public transportation, availability of Para-transit to respondents, mobility needs, transport modes available and respondents ways of getting to their destinations.

Mobility Challenges of Respondents

Figure 3: Showing mobility challenges of respondents

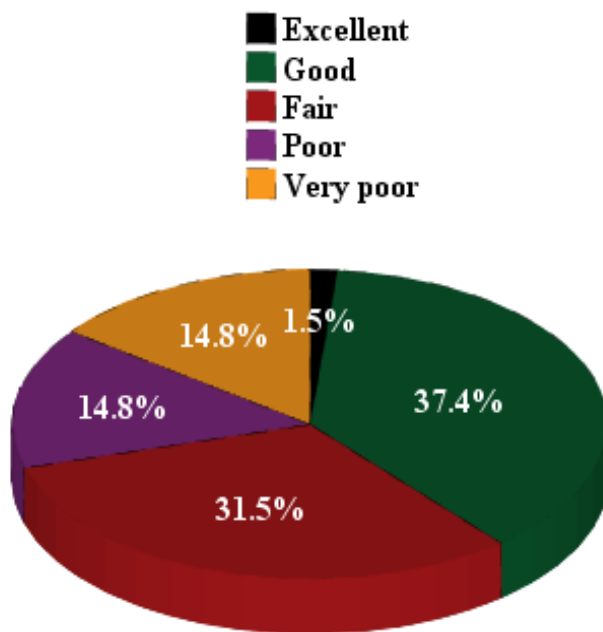


Source: Author’s Computer Analysis, 2018.

Figure 3 reveals that 13.8% of the respondents consider the condition of the roads as a challenge while, 9.9% of the respondents consider attitude of the transport operators as their mobility challenge and 26.1% consider discrimination from the general public as their mobility challenge. 9.9% of the respondents also consider vehicle comfortability as their

mobility challenge and 6.9% consider condition of the motor parks/terminal and bus stops as their mobility challenge. Moreover, 14.8% of the respondents consider waiting time at the motor parks/terminal and bus stops as a mobility challenge while 13.8% consider distance from the terminal to home as their mobility challenge and 4.9% of respondents consider other forms such as complementary facilities as their mobility challenges.

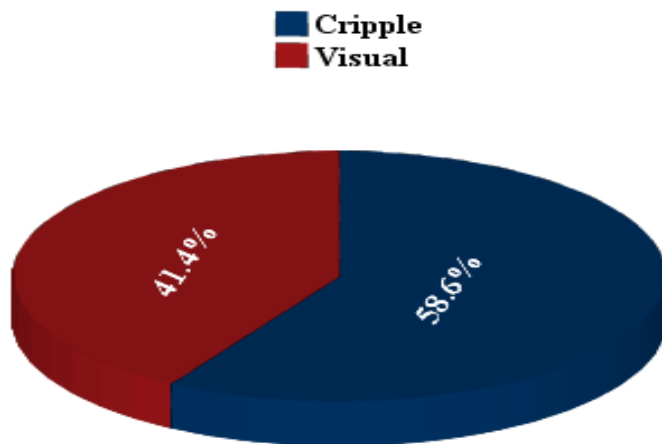
Figure 4: Condition of the Pedestrian Lanes



Source: Author’s Computer Analysis, 2018.

Figure 4 indicates that just 1.5% of the respondents consider the condition of the pedestrian lanes to be in an excellent condition while 14.8% of the respondents considered the condition of the pedestrian lanes as poor and very poor respectively. 31.5% of the respondents considered pedestrian lanes to be in a fair condition while 37.4% of respondents considered the pedestrian lane to be in a good condition.

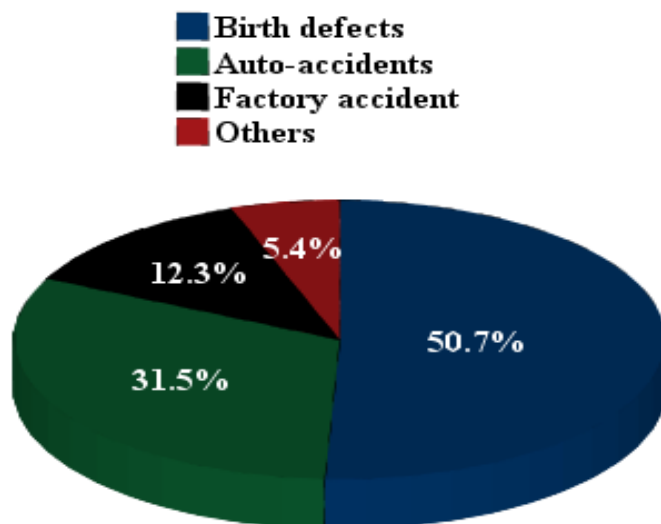
Figure 5: Type of Disabilities



Source: Author’s Computer Analysis, 2018.

Figure 5 indicates that 58.6% of the respondents are physically impaired (e.g crippled) while 41.4% of the respondents are visually impaired. Hence, in the study, the physically impaired respondents are more than the visually impaired respondents.

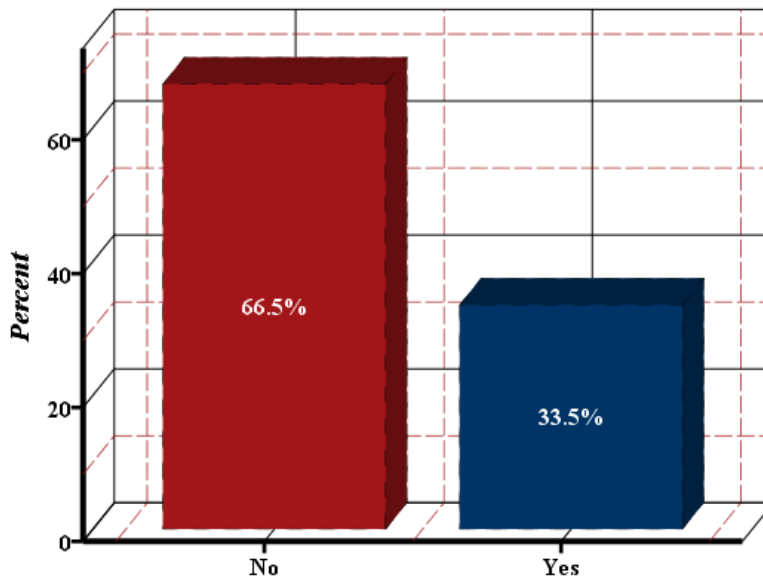
Figure 6: Causes of Disabilities



Source: Author’s Computer Analysis, 2018.

Figure 6 shows that 50.7% of the respondents became impaired by birth while 12.3% and 31.5% became impaired as a result of factory accidents and auto accidents respectively while, 5.4% through other causes e.g. leprosy, spinal cord defect and diseases.

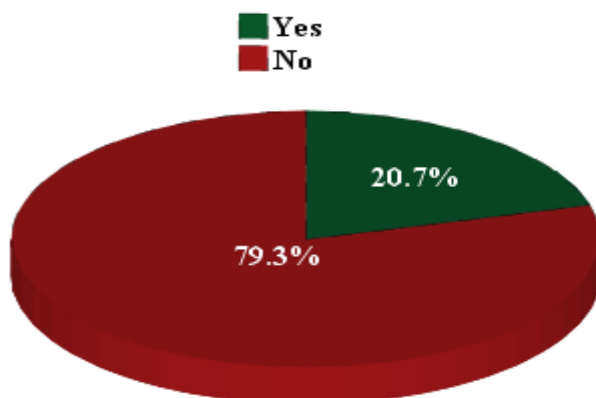
Figure 7: Respondents' Access to Public Transport



Source: Author's Computer Analysis, 2018.

Figure 7 reveals that 66.5% of the respondents does not have access to public transport while just 33.5% have access to public transport. Most of the respondents reside in local areas, where government hardly make public transport easily available which compel the respondents to walk extra distance or spend more before getting access to public transport.

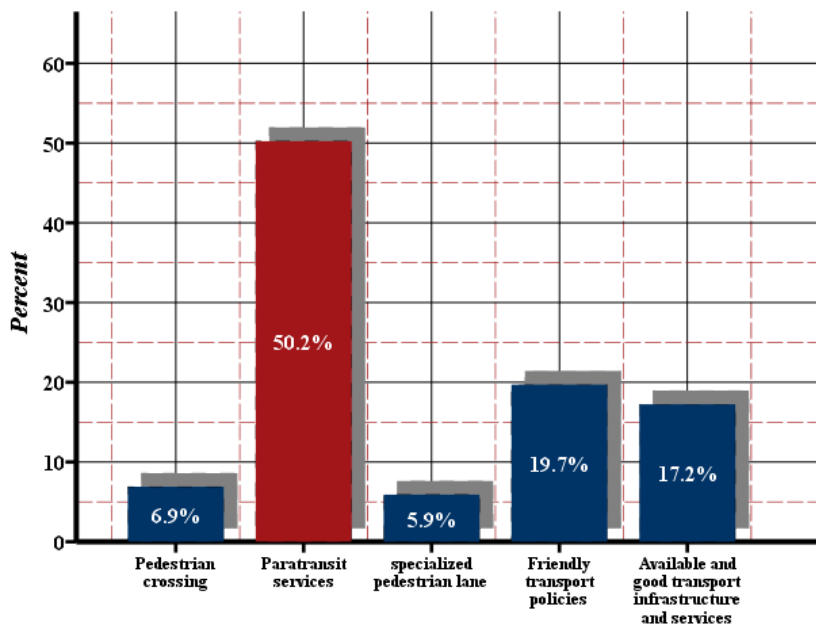
Figure 8: Availability of paratransit services in the study area



Source: Author's Computer Analysis, 2018.

Figure 8 reveals that 79.3% of the respondents were of the opinion that there is no availability of paratransit services in Minna while 20.7% of the respondents have an easy access to paratransit services. Paratransit services facilitates mobility, with its availability at an affordable cost, it will ease respondents mobility challenges in the study area.

Figure 9: Mobility needs of the respondents



Source: Author’s Computer Analysis, 2018.

Figure 9 reveals that 6.9% of the respondents need pedestrian crossing while 5.9% and 17.2% prefer a specialized pedestrian lanes and friendly policies respectively. 17.2% of the respondents need an available good transport infrastructure and services. 50.2% of the respondents want paratransit services to be available. Paratransit services are readily needed because it virtually covers all other mobility needs while greatly reducing mobility challenges.

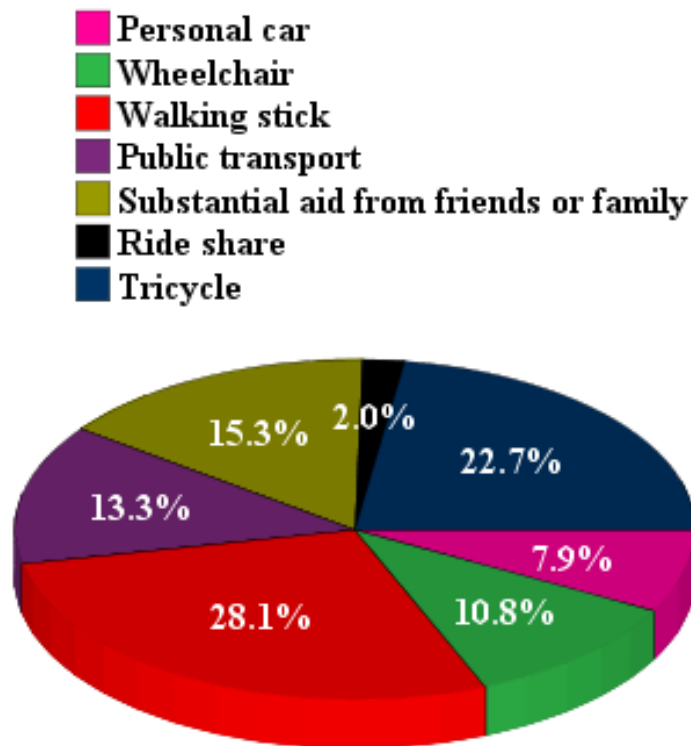
Table 2: Modes of Transport used by the Respondents

Modes of transport	Frequency	Percent
Drive your personal car	14	6.9
Bicycle	3	1.5
Ride with others (e.g., friends, family)	12	5.9
Paratransit (e.g. call-a-ride)	8	3.9
Tricycle	67	33.0
Taxis or hired driver	4	2.0
Shuttle buses	9	4.4
Long buses	9	4.4
Walk	77	37.9
Total	203	100.0

Source: Author's Computer Analysis, 2018.

Table 1 indicates that 6.9% of the respondents drive their personal car, 1.5% of the respondents prefer bicycle. 5.9% of the respondents prefer to ride with friends or family while 3.9% and 33.0% prefer to use paratransit services and tricycle respectively. 2.0% of the respondents prefer to hire a taxi or driver while 4.4% of the respondents prefer shuttle buses and long buses each respectively. Majority of the respondents with 37.9% prefer to walk due to their financial situation.

Figure: 10 Respondents Way of Getting to Their Destination



Source: Author’s Computer Analysis, 2018.

Figure 10 shows that 7.9% of the respondents get to their destination in their personal car while 10.8% gets to their destination by wheelchair and 28.1% of the respondents walk to their destination. 13.3% gets to their destination by using public transport while 15.3% gets to their destination with the help of family or friends. 2.0% and 22.7% of the respondents get to their destination by ride sharing or tricycle respectively.

6.1 Conclusion

It should be noted that access for all can only be achieved through improved transport infrastructure. In order to achieve the goal of an efficient transport system or access for all, government must move away from vehicle-centred transport to people-oriented mobility planning.

Also, policy makers and transport planners must listening to transport challenges of people, particularly persons with disabilities and integrating their suggestions in the design, implementation and monitoring of transport infrastructure and services which are crucial in meeting their mobility needs and providing sustainable solutions to their transport challenges.

7.1 Recommendation

The following recommendations are expected to ease the mobility of people with disabilities in the study city and other cities in Nigeria.

- i.** The transport needs and the challenges faced by different disability groups in the study area should be incorporated into designing and planning of transport system and infrastructure.
- ii.** There is a need for the provision of user-friendly transport system for all classes of people.
- iii.** There is the need to enact a law that will make it mandatory for all transport operators and service providers to make provision for facilities that would ease access of physically challenged people to their transport services.
- iv.** Government should also ban the use of undesignated terminals and bus stops so as to make way for designated and more functional terminals and bus stops.
- v.** Terminals and bus stops should be made comfortable for the disabled through the provision of shelter and sitting facilities. Special facilities should be provided as well.

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