

Inclusive Environment. Disabled Bodies in the Built Environment of Dar es Salaam City

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Abstract

Some people are left out of their community because of matters they have no control over. Some are excluded from the built environment because of their age, ethnicity, race, disability or migrant status. The “right to the city” concept provides an arena for the discussion of the inclusiveness of disabled and aging population in the built environment. Dar es Salaam city provides an exemplary case of a city excluding disabled and/or older people, confining them in their homes. This qualitative study investigates how being unable to access services within the built environment hinders participation of disadvantaged individuals in social, political and economic arenas. It is argued that forgetting these disadvantaged groups in the planning and design of built environment that urban managers, engineers, architects and planners are creating, enhances unjust societies. Therefore, contemporary urban design and policy-making approaches should inform practitioners to leave nobody behind.

Keywords: inclusive environment, urban design, disability population

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Introduction

Making quality cities and towns accessible, inclusive and safer for all people is essential for sustainable urban development and is also human rights imperative. This applies identification and elimination of obstacles and physical barriers to accessibility to buildings and other facilities open to the public (UN, 2006). Effective participation of People with Disabilities (PWDs) in their community life largely depends on environmental accessibility. Disadvantaged and marginalised groups are more likely to face access barriers than normal people considering poverty as the causative side of disability (Venter, et al, 2004 and Takamine, 2003). Consequentially, disabled people excluded from social interaction hence economic hardship.

Over the years, cities across the world have been struggling to successfully provide quality life in areas that people are proud to call home regardless of their age, ability or disability. Thus, to ensure safer, inclusive and accessible urban environment, the United Nation's convention on the Rights of PWDs (CRPD, 2006) agreed on promotion, protection and exercising full and equal enjoyment of all human rights and fundamental freedoms by all PWDs. This applies to inclusive urban environment through identification and elimination of obstacles and physical barriers to access buildings and other facilities open to the public including public spaces, (UN-Post 2015 Sustainable Development Agenda).

Dar Es Salaam City Space and PWDs

Settlement development in Dar Es Salaam city has long history of embracing informality in social, economic and physical space. Somehow, this account on how people's power has contributed in the decolonization of settlement development in Dar es Salaam city. Currently, the city has more informal settlements than formal and hence less public spaces (Magina *et al.*, 2020; Rasmussen, 2013). The Dar es Salaam Master Plan of 2016-2036 intervened by providing 3452.12 Ha for recreational in which open spaces occupies 573.86Ha equivalent to 0.35% (URT, 2018). Nevertheless, this is the case for planned settlements that occupies small population including PWDs in the city. The fragile nature of available public spaces within the city is exacerbated by encroachment and haphazard change of use (Hassan & Mombo, 2017; URT, 2018). The nature of open spaces in Dar es Salaam has similarities in use but differ in terms of spatial distribution and conditions. Scholars have explored the socio-economic aspects of PWD in Dar es Salaam for instance, education (Kavishe & Isibika, 2018; Ngonyani & Mnyanyi, 2021; F. Tungaraza, 2018); health (Sequeira D'Mello *et al.*, 2020); economy and employment (H. Aldersey, 2012; Joseph, 2021; Kavalambi, 2016; Mpemba, 2007; Mushi *et al.*, 2022; Wilson & Shishiwa, 2023); transport (Chengula & Kombe, 2017; Mushule, 2010); social and family (Johansson, 2014; F. D. Tungaraza, 2012); and housing (Huba Mary Nguluma & Kemwita, 2018; Huba M Nguluma & Magina, 2019).

There is little discussion on the spatial inequality produced for PWD in Dar es Salaam for example urban planning practice in Tanzania is based on land provision and development control rather than land development (Peter & Yang, 2019). Land development is entirely based on private and individual developers (Kazaura *et al.*, 2019; Luteranya & Lukenangula, 2023) who has less consideration on regulatory framework and social inclusion directly affecting PWDs. The failure of planners to facilitate the investment in urban areas in Dra es Salaam city infringed the right of the poor including

PWDs to enjoy the city life. For instance during the implementation of BRT routes, the actual walkways designed consideration were altered to reduce the size of walkways which could accommodate PWD comfortably (Shigella 2022). Moreover, non-consideration of the setbacks to promote walkability and over utilization of road reserve by informal activities (Scholz *et al.*, 2013). Furthermore, PWD negotiation of their presence in urban space is problematic because participation in development processes is still low. Despite efforts to provide and maintain public spaces in planned and unplanned settlements respectively poor accessibility and underdevelopment are major challenges to users and inclusiveness to PWDs (Woodcraft *et al.*, 2020). Sanga and Mbisso (2020) noted that communities are experiencing lack of sense of place because of lack and poor maintenance of the few existing facilities. The poor accessibility and facilities affect usability of public spaces by PWD significantly.

Literature Review: Background to the Study

Statistically, over 1 billion (15%) people of the world population live with disabilities (WB, 2008 and WHO, 2011). As cited by Venter, 2004, UN estimates that between 6% and 10% of people in the developing countries are disabled. Disability in such countries is associated with poor access to health care, poverty, accidents and the effects of armed conflict (UN, ECMT 1999). The PWDs face difficulties in accessing most of the urban environments in their localities in many parts of the world (Meshur and Alkan, 2013). Too often urban environment has served as a barrier to the inclusion and participation of persons with disabilities in economic and social developments in cities and communities (WB, 2008 and WHO, 2011). Many countries fail to solve the issue of accessibility towards PWDs in urban planning because of the capacity constraints, lack of resources and competing priorities (Akiyama, 2005). The PWDs face various barriers in accessing quality public services. These barriers have contributed to inequalities and exclusion of PWDs. Developed countries have achieved a lot in reaching such visions by using urban design (Lynch, 1960) Great Britain (2000), Akiyama, 2005). Similarly, cities in developing countries have progressed in creating and promoting built environment that support suitable life for its inhabitants in all aspects of economy, social, political, technological and environmental, that would sustain quality life (Adam, 2009). Nevertheless, urban expansion around the world is characterised by uncontrolled urban sprawl leading to inefficient use of space and natural resources (Lupala, 2002). Urban design is used as a means to address these challenges. Good design creates liveable places with distinctive character, streets and public spaces, which are safer, accessible and pleasant for all (Adam, 2009). Relationship between the natural environment, urban form and structure, economic and institutional processes, and social livelihood requires a transformation of the existing socio-economic, environmental and urban design settings (Aina, *et.al*, 2013). It seeks to enable the natural processes that sustain life to remain intact and to continue functioning alongside initiatives for the improvement of individual quality of life and the well-being of the society (Champa, 2015). Today, mobility and accessibility are the two key components in designing and expanding of cities for efficient functioning of different systems. The degree of good city performance is determined by its ability to provide biological, psychological, social and cultural requirements to its inhabitants.

Sawadsri (2010) specifies that the availability of accessible facilities in the public built environment is extremely important as they facilitate physical access to use those public spaces and also support a public presence that leads society to integrate with one another. The UN in its Post-2015 Sustainable Development Agenda discussed the importance of cities and countries worldwide to promote and ensure quality in human settlements, which are inclusive, safer and sustainable. This political commitment also needs to be translated into actions and measures to ensure universal access to safe, inclusive and accessible public spaces, adequate and affordable housing, urban and peri-urban transport and basic services for all urban dwellers, whether or not they have a disability (UN, 2015). This agenda has also identified the critical need to focus on empowering people living in vulnerable situations including the PWDs. Marshall, et al., (2003) discuss inclusive environment in terms of accessibility to the built environment by everyone regardless of age, gender, ability or disability. He linked environment with society's and individual's attitudes, the design of products and communications and the design of the built environment itself. People's attitude can affect built environment in a positive or negative way. The needs of people with disabilities are often considered separately from other groups of people and often after the design has been completed, the practice which indicate exclusion of in the design process (Marshall et al., 2003). Tanzania has a history of disregarding disable people. Tribes like Maasai, Pare and Kuria have persisted negative perception on disabilities. The belief is associated with curse and misfortune in the society (Seya, 2009). This is also reflected in the built environment where designs continue not to address disability issues. Way after independence in 1995 charity initiatives under the Ministry of Health and Social Welfare were undertaken, as there was no policy statement on operationalization of such issue. In 1975, Tanzania signed a declaration on the right of disabled people. Similarly, in 1993, she joined the National Standard Rules on the Equalisation of opportunities for PWDs. The country also joined the continental decade of persons living with disabilities in 1999-2009. The Arusha Declaration advocated for disabled individuals to seek help from other people instead of their participation in the job market. In 1992, Disable Person (Employment) Act No 2 encouraged their participation in income generating activities. In 2004, the national Policy on Disability was established. Currently, the disabled population is estimated at 3.6 million, which is 8% of the estimated population of 51.82 million in 2014 (Disability report, 2008). Tanzania enacted the Person with Disability Act in 2010 to facilitate provision on health, social support accessibility and others. Effective participation of PWDs in their communities depends on the environmental accessibility. Existing built environment is limited in allowing disabled people to exercise their right, for instance more roads in Dar es Salaam City have clearly demarcated carriage ways only. Inappropriate physical planning and implementation has negative impact on mobility and accessibility. Women and children face double burden in that matter (Sabbath and Mazagwa, 2014).

Disabled People's Right to the City

Disability is viewed in wide context depending on factors such as geographical location and culture, which is linked to socio-economic and physical aspects. Right to the city provides a framework in understanding disability within the built environment (Harvey, 2008). This framework highlights variety of choices urban environment provides to its inhabitants. Choices the city offers to its inhabitants include services, accessibility and

purchasing power. The right to the city is far more than the individual liberty to access urban resources; it is a right to change oneself by changing the city (Harvey, 2008). Moreover, ideas assist to understand PWD position within urban space. The struggle of the urban poor as manifested in the informal activities in the global south and migrants in the global north mirrors the struggle of PWD as they navigate the spaces from one point to another. Few places like Japan's built environment have succeeded to provide an inclusive environment and showcased cities of barrier free environment since 1953 (JICAPED, 2002 and Akiyama, 2005). The motto for creating such environment ensures an individual regardless of age, size, ability and disability to enjoy quality life. Barrier free environment in Japan gave rise to 'universal design' approach, which focuses on production of plans, which are inclusive (Akiyama, 2005). Similarly, Imrie and Hall (2001) pioneered guidelines, which are currently used within the construction industry, reduce environment pressure and architectural disability. Specific mobility barriers are social, psychological and structural to accessibility. From a design point of view, sidewalks that are unpaved, poorly maintained, or crowded by vendors are common across the cities, and limit pedestrian mobility, blockage of sidewalks, heavy traffic, difficulties in affording public transport (Venter, et. al., 2004, Sawadsri, 2010).

Disability as a Social Barrier

Seirlis (2002), identified several myths about people with disabilities in their societies, including PWDs are abnormal, always need help fragile, sickly and unhealthy. Those with psychiatric disabilities are mad, insane or mentally ill. In Ethiopia for instance, a disabled person is one who is unable to ensure an independent life as a result of deficiency in his or her physical or mental capabilities (JICAPED, 2002). Some Koreans believe that lifelong disability is payback for wrong doings, making the disabled and their families to suffer from shame, helplessness, denial, withdrawal, and depression (Zelleweger, 2011). The same views are relevant in African developing countries, where lack of equal consideration facing PWDs tend to result in barriers in accessing public facilities such as education, health, religious and recreational facilities. The society's belief has a degree of impact on what transpires in the built environment. Disability as the process of social exclusion identifies sources and factors for exclusion of PWDs from family level, community and social, as well as institutional and state level. In these levels exclusion happens as a result of lack of movement and transport, which creates lack of capacity, unfriendly roads and transport, unfriendly human environment, and lack of equipment. For example, due to lack of individual capacity, social ignorance, unfriendly environment, inaccessible communication and transport, the PWDs cannot meet most of the public facilities. Poverty is both a cause and consequence of disability (Venter, et. al., 2004 and Takamine, 2003). People with disabilities are more likely to face access barriers than normal people considering the causative side of disability. Consequentially, disabled people are excluded from social interaction, in reaching recreational areas, inaccessible public facilities and employment opportunities, thereby causing economic hardship. Disability has impacts and implication on person's life, regardless of one's sex although it is seen as a discriminatory fact to marginalised women group. Women with disabilities frequently suffer a double discrimination, both on the grounds of gender and of impairment. Women in developing societies are responsible for daily household activities making them more exposed to various challenges such as lower access to credit, education, and reaching public utilities. A significant proportion of children with

disabilities are denied access to basic services including education and health care. While all children have an equal right to live in a favourable environment, many children with disabilities continue to spend much or all of their lives in institutions, nursing homes, group homes or other residential institutions.

Statement of the Problem

People with disability face physical environment obstacles preventing them from fully exercising their rights and participating in social, cultural and professional life equally so with others. This includes access to all public services, the opportunity to earn a living and the right to participate in family, community and political affairs. Challenges faced by disabled people are similar worldwide; access solutions cannot simply be copied from developed to developing countries as clearly known that priorities, resources and operating conditions vary. Urban design should meet design requirements allowing people of all age, size, abilities and disabilities to work shop and enjoy recreation locally or to travel easy. However, in Dar es Salaam City this is rarely the case. People with disabilities endure difficulties within their neighbourhoods. This study aims to explore the existing position of the disabled people in urban areas in relation to understand how the built environment enhances exclusion of disadvantaged groups in urban areas by looking at the role of urban planning and design in promoting mobility for PWD.

Research Methods: Meeting the Disabled People

This study is qualitative in nature. It analysed the disability in the built environment of Dar es Salaam City in Sinza neighbourhood (Figure 1). Sinza is one of the few planned residential neighbourhoods developed in the 1980s to cater for the low-income residents and its original plan included the provisions of different space uses (Kironde, 1991, Hossain et al 2018). Currently, the neighbourhood is experiencing vast physical and social transformation from its original typical residential use to economic and institutional clusters characterized by busy streets. The increasing potentiality of Sinza links potential areas which has made the neighbourhood a nexus in almost every part of the city. It is well connected to three (3) major highways to Julius Nyerere International Airport, neighbouring regions, and countries. Even though Sinza is a planned area, it is characterized by limited mobility for the residents on daily basis (Sanga, 2015). This is a generalized spatial risk in the neighbourhood that has greater impact to PWDs. This is similar to the recently raised concern by PWDs on lack of disability infrastructures to support walkability (Lukenangula, 2023). Planned open spaces and road reserves in Sinza have been used for commercial activities either by encroachment or temporarily licensed (Hossain et al., 2018; Scholz et al., 2013). Qualitative data collection techniques were applied including in-depth interviews, observation and photographing. Snowball sampling was used to reach the people with disability. The ward leader provided initial information of the lead respondent. A total of 15 individuals were involved in the research; including 12 disabled whose real identity remains anonymous due to sensitivity of the matter on individual basis and dissent on the identity disclosure; 2 non-disabled and 1 town planner. The interviews were face-to-face allowing the researcher to gather rich data from the respondents. Back and forth question-and-answer sessions allowed respondents to provide their encounter as disabled in the built environment.



Figure 1: Location of Interviewed People with Disabilities

Findings of key issues

a) *Social-economic and cultural construct of disability in Sinza built up area*
 Social inclusiveness for people with disabilities encompasses aspects of social life and social services including health and educational services. Disabled people in Sinza attain their services on act of charity and this is mostly observed through education and health services provided to these people. Under certain circumstances parents deny to take their children to schools because they feel ashamed or afraid of subjecting their children to possible accidents and bullying. As explained by Anna it is clearly seen that the shame felt by her father resulted to her loss of education.

“Owing to my disability, my father refused to take me to a formal education while in Chato despite the willingness and support of my mother and brother. Nevertheless, after moving to Dar es Salaam my brother decided to take me to adult education”. (Anna Christopher (1), Disabled, May 2016, Sinza A).

Some parents who are motivated to take their children to school, poverty acts as the major constraint. For instance, there is one special school providing education service for children with disabilities (known as Sinza *Maalumu*) but located in Kijitonyama.

Benedict Godfrey is dealing with children living in difficulties in Sinza A, he explained how children living with disabilities are not provided with social services like education and health services but through charity and aid some of them attain these services;

*“Children living with disabilities do attain basic needs like education. There is only one school providing education service for special children (Sinza Maalumu) at Kijitonyama but serves at adjacent areas like Sinza”
(Benedict Godfrey (13), non-disabled, May 2016, Sinza A).*

Women with disability are more prone to discrimination within Sinza. This concurs with WHO assertion that, women face double discrimination and non-caring attitude, being a woman and being a disabled (WHO, 2011 and ICD, 2012). Despite that education and other social services are essential and right to all individuals, socially it is still unacceptable to let disadvantaged group access the services. It is stated that within Sinza society a man with disability to marry is normal but for a woman with disability to be married is linked to witch crafts, also type of disability have impact on marriage issues, this fact has been proved by Anna as she explained;

*“People have wrong perception about my marriage, they ask how did I get married with this disability or did I use witchcraft for my husband to marry me”
(Anna Christopher (1), Disabled, May 2016, Sinza A).*

In Sinza when a person with disability is born the main suspicion and myth would be; the child was bewitched while in the womb, the mother slept with multiple partners during her pregnancy, the father slept with another partner while her wife was pregnant, the family tried to get rich by using traditional doctors but failed to carry out the traditional doctors' instructions to the letter, or the family tried to get rich by bewitching their child. This happens especially to the business people as she explained;

*“People have wrong beliefs on disability, for instance people believed I was bewitched thus I had a leg problem something which is not true, but I heard there are business people who make their children cripple to be successful in business”.
(Halima Athumani (3), Disabled, May 2016, Sinza C).*

Similar to the study done by Boys (2017), acceptance of the myths around disability has a strong historical and cultural background in Tanzania emanating from most of the tribe-based cultures. PWDs are believed to be unfit and unfortunate members of society. Over the decades, this myth has shaped the way people perceive and consider disability, and how that perception is received and embraced by the disabled. As discussed by Dolmage (2017), society perception on disability affects self-determination by disabled so does their socio-economic participation in the urban environment. This perception has shaped our way of thinking beyond our normal life to professional practices. This implicates spatial thinking and consideration of disability as much as planning professionals' outputs and the decision-making process mimic such perception. Thus, disabled people accept their disabilities and learn how to cope within the society. Significantly, social exclusion and discrimination within their societies provides no

option for them rather than adopting to aggressive behaviours to ensure their safety. This includes being afraid to demand for their rights and sometimes to isolate themselves. For instance, bullying is an everyday thing for disabled people despite that the affected individuals cope with it by accepting the bulls as Walter explained:

“Sometimes am given improper names like ‘Mabaga Fresh’, it’s not that I like it but I accept because it wasn’t my intention to be born like this, so I have nothing to do rather than to get used to them”
(Walter Ernest (2), Disabled, May 2016, Sinza C).

Bad attitudes, discrimination and mistreatment within the societies play a virtual part in making disabled people fill abnormal. Disability is an individual problem so the society has it in mind that it has to do with paying of the wrongs committed by one’s parents. Therefore, disabled people take their disability as a personal burden. Very few people relate disability with external factors like injuries, accidents, wars and medical impacts. Similarly to what have been discussed by Antika, 2010 and Vehmas, 2004:34 that people with disabilities are marginalized by being seen as less human than others. Anna Christopher explained:

“Why did you give birth to me mother? I once asked mother such question because of discrimination I experienced.
(Anna Christopher (1), Disabled, May 2016, Sinza A).

Others relate disability with charity and the missing part of the body is considered to be an icon of pity, this affects self-perception of people with disabilities. For them to get services and their daily needs depends on people’s pity on them and charity; others sometimes use their impairments as a source of income through begging. It is not the only option but rather a point of no return due to failed initiatives to support employment for people with disabilities. This includes government support on the right to productive and decent work, vocational training, and basic services (H. Aldersey, 2012). Studies shows low employment rate which is mostly caused by denial of employment as observed in various case studies in Tanzania (Uromi & Mazagwa, 2014). A 2010 collaboration survey study done by CCBRT, Radar Development and Disability Aid Abroad within Tanzania Union of Industrial and Commercial Workers (TUICO) in Dar es Salaam, found that over 120 companies with more than 25,000, only 0.7% of the employees are disabled (H. Aldersey, 2012). Employers argued for additional financial support, diminishing production, and required additional workplace support (Kiweka, 2010). Significantly, this draws a line that begging becomes the best option for the survival of disabled people except for those who have family support. For instance, Namwata *et al.* (2012) study in central Tanzania found that physical challenges and disability significantly contribute to more than 45% of street begging compared to other factors. Hence, this implicates begging as an important source of income for disabled people. As explained by Mohamad Rashidi;

“I am a Bajaji driver; sometimes I get lost and ask for location to drop off my passengers but whenever I try to ask most of the people think I want to beg”.
(Mohamad Rashidi (10), Disabled, May 2016, Sinza D).

These acts make disability issues in Tanzania a private or family matter and thus most disabled are hidden or confined in at home. However, situation is different in other places around the world, for instance as cited by Antika, 2010, Puig and Tetzchner, 1998 asserts that in ancient Roman, people with disabilities believed to have special ability, a person with blindness thought to have talent in music and prophecy. This proves to the society that people with disabilities can still do something for their lives regardless of the situation and difficulties they face like accessing employment.

Disability reduces economic opportunities for people with disabilities including for their families and friends and in the long run reduces economic output of the nation at large by reducing economic contributions of certain members of society. Living standards of disabled living in Sinza is affected by the economic well-being of their families.

Nevertheless, disable people are working hard to reduce dependence on other family members (Figure 2). Given their limited education background informal sector accommodate them as explained:

“Am not married, I live with my parents. Despite of them being able of taking care of my needs still I see no reason of staying idle at home. So, am self-employed, I do shoe shinning to earn some cash. I don’t want to be dependant. Most companies are not ready to employ a disabled person, they think we are helpless and beggars. This is not true most of us are self-employed and can produce as abled persons. Why do companies don’t trust us?”
(John Jacob (2), Disabled, May 2016, Sinza A).

This was ascertained by Geoge’s friend:

“George’s family has good and stable economic base, however he doesn’t want to stay at home thus he decided to be a shoe shiner to make his own living” (Patrick Filbert (14), non-disabled, May 2016, Sinza A).

Unemployment and lack of equal economic opportunities for people with disabilities push them into poverty. Although Poverty Reduction Strategy Paper 2000 and Millennium Development Goals (MDGs) had clear intention of alleviating poverty in Tanzania reaching 2015 especially to people with disabilities, but existing situation does not relate to its vision and mission. People with disabilities still live under poverty, being disabled means: one is limited to various services within the society; it is difficult to access public services, access financial resources like loans for self-employment. Critical situation lies in accessibility to various basic social services including health and education service. Increasingly planning practice where planner is not fully engaged in the land investments has resulted into intentionally exclusion of the PWDs in the Sinza neighbourhood spatial reality. As PWD continued being confined in their homes, liberation from poverty continues to be a dream for them. Michael Jackson explained;

“I was lucky my parents were able to afford hospital bills for my treatment otherwise you could find me crawling. Medical services are costly like use

of calipers and worse still CCBRT¹ offer such services at a cost while they receive them freely from the donors”.
(Michael Jackson (11), Disabled, May 2016, Sinza D).



Figure 2: Self-Employed Shoe Shiner at Sinza A and C.

Under certain circumstances laws, policies and acts can be ineffective in a sense that do not directly enforce people to follow them or personnel responsible to enforce these laws to be active are not fully responsible. People with disabilities are not aware of the legal framework that protects their rights. Except for the 1977 constitution which is familiar to all respondents but there are other acts, policies, regulations, rules and guidelines in different fields that protect the rights for people with disabilities which these people are not familiar with. For instance, by mentioning a few there is High Way Code 2008 which provides obligation to all road users to protect the vulnerable groups including PWDs. It restricts misuse of pedestrian walkways to protect the safety of all pedestrians and vulnerable groups including PWDs (URT, 2008); National Road Safety Policy, 2009 gives special consideration to PWDs in any infrastructure development in the country. It directs compliance to inclusive infrastructure design and standards to cutter the need of disadvantaged groups including PWDs. It obligates responsible authorities to create awareness and special emphasis on safety of vulnerable groups including PWDs (URT, 2009). Understanding of legal framework gives confidence to people with disabilities the way forward to seek for their rights, this includes on occasion such as breaking of rights and rules, requesting for provision of services that support easy movement within the urban environment.

¹ Comprehensive Community Based Rehabilitation Tanzania (CCBRT). A locally registered NGO that provides health services for vulnerable members of society.

“I have no idea of any legal framework that protects rights for people with disabilities except for the constitution of the United Republic of Tanzania which says all Tanzanians are equal, no one is above the law”
(Walter Ernest (2), Disabled, May 2016, Sinza C).



Figure 3: Disabled with Private Assistive Devices at Sinza C and Sinza D.

b) *Barriers in Built Environment for Disabled people*

Existing urban environment in Sinza does not eliminate barriers for free accessibility towards people with disabilities. Buildings, roads, transportation and outdoor facilities, including houses, shops and workplaces are not friendly to people with disabilities. Non-adherence to planning of standards and guidelines for accessibility facilities and services, increase problems that disabled people face within the built environment. Awareness of the right to serviced places within the built-up area is insufficient. Important and supportive facilities like guides, readers and professional sign language interpreters, to facilitate accessibility to the built environment are not provided for. Halima reiterates,

“I don’t go out most of the times, instead I do home duties. Road drivers are very rough especially Bodaboda and Bajaji, they do not respect pedestrians, there are no facilities for people with disabilities”.
(Halima Athumani (3), Disabled, May 2016, Sinza C).

c) *Public Spaces*

Public spaces in Sinza neighbourhood are not utilised by disabled, there is no any kind of facilities provided within these public spaces relating to the need of disabled people. From different concepts of neighbourhood design, allocation and design of the public spaces considers evenly distribution and accessibility in travel times and convenience. This is relevant in Sinza however current situation shows that most of the open spaces and water point’s areas were sold as plots. Consequentially, there is a significant reduction of public spaces in the area. Studies shows that, securing land in surveyed

areas is a long-standing challenge in Tanzania. For the past decades from the 2000's, there has been a vast gap between demand and supply for surveyed land. In Dar es Salaam alone, between 1990's and 2000's, there was more than 200,000 demand for surveyed plots and only 8209 were allocated by the authorities (Kironde, 2006). Similarly, Moshia (2012) found that low supply for surveyed plots led to informal means of securing plots including purchasing open spaces and public utilities areas. From 1990's, Sinza alone, 17% of open spaces and public utility areas were converted to surveyed plots, significantly creating a shortage for public spaces for social amenities (Moshia, 2012). The current situation shows that some of the public spaces are converted and invaded for housing and commercial purposes as observed on paces designated for footpaths and public utilities such as communal water points. Selling off of public open spaces signifies increasing demand for surveyed plots and the preference for planned settlements by urban dwellers. For the public especially vulnerable groups, this creates a gap for social inclusion, spatial exclusion, and social classes.



Figure 4: Barriers in Sinza B built environment.

Arbitrary, selling of plots due to lack of clear coordination between the municipal and the ministry responsible for land, thus there are complains that some people bought plots from the municipal and they have title deeds (Figure 5). Other people saw some of open spaces are vacant for 15-20 years hence decide to grab them (Land grabbing). It is legal to purchase surveyed land according to the town planning provisions, and the entire process is legally bound whether it is from the municipal, private companies, or individuals. However, land for public use; hereby defined by Land Acquisition Act cap 118 of 2013, Section 4(1), pg.3, and GN No. 88, Urban Planning Act, Cap 355, pg.2, Control and Management of Public Open Spaces regulation; as land for the general public; cannot be purchased under any circumstances. Moreover, the Urban Planning Act No. 8 of 2007 section 7(5) provides a full mandate for planning authorities including

municipalities to *reserve* and *maintain* all land planned for public use including open spaces, recreational areas, and parks (p. 23). This means, under no grounds, planned and surveyed land for public use cannot be purchased for another use unless stated otherwise in the corresponding laws. Therefore, the act of selling and buying such land is fraudulent.

Moreover, existing public spaces have been used for private interest like settling of construction materials and parking. This is an impact of responsible personnel and society to abandon these areas. This situation poses a question to town planning professionals as to why people are attracted to invade and purchase of open spaces understanding their importance and the illegality behind it. This may be a result of high demand for serviced plots within urban centres as well as corruption. The power and mandate of urban planners under respective authorities are clearly stated in sections 4 and 5 of the Urban Planning Act No. 8 of 2007; including the power and responsibilities to consider vulnerable members of society in planning. However, such power lacks simulation on special needs of PWD on their outputs which is mostly justified on the implementation on the urban environment. For a positive consideration of the needs for PWD, there is a need for a change of normal practice that urban planners are expected to provide only space for various use and other planning professionals to utilize them. According to the Urban Planning Act No. 8 of 2007, the urban planners should extend their roles to ensure cooperation between all planning professionals in the implementation of plans and protection of these areas. Currently, within Sinza neighbourhood there is a internal initiative by the Ubungo Municipality under the Department of Town Planning and Lands Administration, to eliminate all buildings constructed on open spaces and other public spaces like water points. As a result of the initiative, most of the citizens direct their claims to the local leaders (political leaders are ward and sub-ward levels) saying they are the reason and responsible for such breakdown. Despite being unjustified; the claims were established based on the public understanding that the local leaders have legal jurisdiction on the land administration at the ward level through the established land committees. Therefore, any vagueness on matters about land is directly associated with them. Moreover, such claims raised a need for further investigation for justification but failed due to limited resources and such investigation is highly classified and dangerous.

Lack of facilities such as paths, walkways, signs, lights which are important for people with disabilities to enjoy public spaces are missing, and this means it is difficult to attract people with disabilities to use such areas. Some of the assessed public spaces in Sinza neighbourhood are not serviced with facilities that could aid in determining their intended use such as active, passive recreational, or gardens. For instance, except for the playgrounds that are active during the evening, other public spaces difficult to determine their use. Open spaces bring people together through different social events like children's games, chatting and integrating and through services like gardens, path, benches, lights, water kiosks, small shops may attract people to use these spaces. People understand functions and important of these public spaces but poor maintenance and lack of control makes them to lose its meaning. Thus, other open spaces are used for private matters for instance settling materials for their constructions, parking etc (Figure 5, Sinza A.).

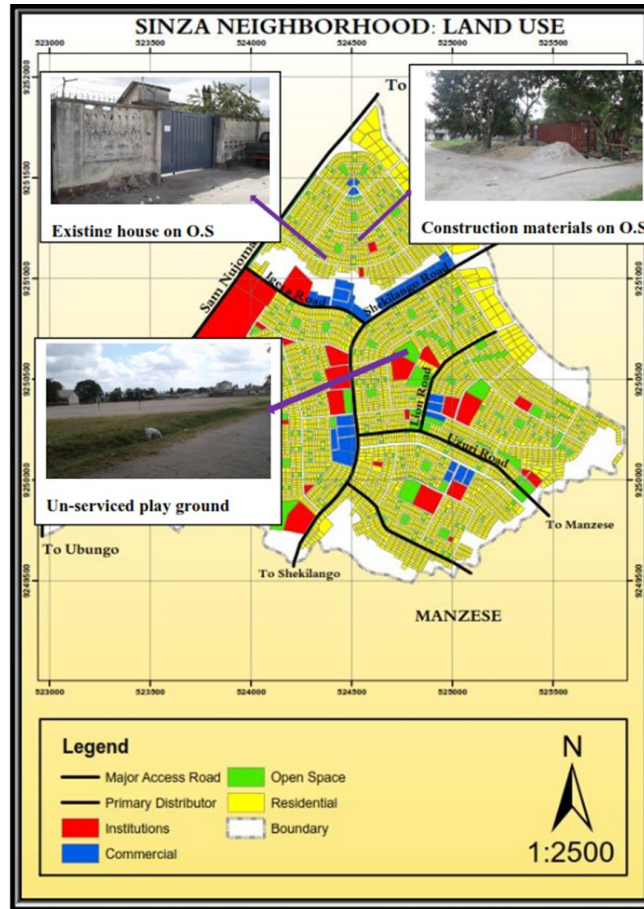


Figure 5: Location of Public Spaces with Accessibility Challenges for PWD's.

Moreover, barriers like blockage of the walkways due to unauthorized parking is caused by existing business along the other side of the road for example bars, offices, shops, restaurants, and car wash. These businesses have no areas for parking therefore, use pedestrian walkway as parking and eventually forces pedestrians to share carriage way with vehicles.

Discussion of Key Findings:

Sinza neighbourhood is a product of social relations and physical space which demonstrated how PWD negotiate their presence in the physical space albeit not favourable to them (Lefebvre, 1947). Urban planning practice still embodies the colonial past (Hossain *et al.*, 2018). Nevertheless, the increase of none state actors in land development has spearheaded the transformation of Sinza neighbourhood with limited spatial inclusion of PWDs. The continuous negotiation of PWD access to public spaces because of concerns about safety, comfort and community acceptability.

Lack of Inclusiveness

Exclusion is prevalent and directly driven by the built environment and therefore the built environment (how it is planned, designed, implemented) is the catalyst for change or critical site of action in the built environment. Socio-cultural and economic situation

worsen the case. Dependence of the PWDs under poverty condition is a two-way sword as disabled people fail to meet their basic needs hence it further pushes them to extreme poverty. The built environment restricts the number of individuals with disability who can participate in social, cultural and economic activities. Inclusiveness of people with disabilities in built environment in Sinza is not only affected by the urban design itself but factors like lack of facilities that promotes mobility for people with disabilities. Poor roads condition and maintenance of the street signs, road signs increase the level of inaccessibility for disabled within the urban environment. Landscape design is not much considered within the neighbourhood, facilities such as bollards and pavements if provided for could ease the accessibility of the disabled. Moreover, poor maintenance and control of public spaces results to poor social interaction within the neighbourhood. Planning of road infrastructure in the neighbourhood has followed a road hierarchy system which brings a sense of connectivity, accessibility, and permeability to people with disabilities. However, the study found that the physical conditions of the infrastructure and lack of facilities are the main barriers to accessibility for people with disabilities within the neighbourhood.

Furthermore, walkability is considered as one of the important factors in measuring the mobility of people with disabilities within the neighbourhood, and it has close interrelationship with urban environment. Built environment can either facilitate or discourage walking and other types of mobility considering PWD example wheelchair users. Through land use and transportation systems, good urban design creates safer pedestrian environment especially to people with disabilities. PWD are affected not by the design of the neighbourhood but by poor infrastructure systems and lack of important facilities that promotes mobility for people with disabilities. In planning context walking has been promoted and motivated as the means of avoiding traffic congestion within urban centres for instance *Posta CBD*. However, urban designers give little attention on creating walking environment that attract and motivate walking behaviour including quality of the streets, walking facilities, as well as pedestrian safety. This is justified from the current urban planning practices that are limited to the role of space provision only. To ensure the inclusiveness of their plans, their roles should extend to designing and close supervision and cooperation during the implementation phase. It is high time planning authorities leave their offices and visit the neighbourhoods where land investment is taking place to ensure that suggestions and requirements provided in the plans are adhered to safeguard the rights of the people with disabilities and other urban poor.

Permeability and Connectivity

The quality of permeability in the neighbourhood plays a major role in making places more accessible by both the able and non-able persons. Accessibility and mobility within Sinza neighbourhood has been indicated by the design and layout of buildings and road infrastructure. The main factors that determine permeability and connectivity within the neighbourhood include blocks size and shapes; where by blocks are not too long and are provided with access roads to residential area. However, permeability is also affected by road conditions within the streets which can impact to delays, carelessness of *Bodaboda* and *Bajaji* drivers.

Primary distributor roads of 30 m right of way bound the neighbourhood as specified by Clarence Perry's concept, following major access, access roads to residential plots as

well as foot path. This prevents heavy traffic to cross the neighbourhood and to ensure pedestrian safety including people with disabilities. However, the hierarchy misses facilities that segregate motorised traffic and non-motorised traffic, facilities such as paths, fly overs, under paths and green belts, the only facility observed is sidewalk in one road among many.

Conclusion: Enabling Built Environment for PWDs

Most of the urban areas in Tanzania have been planned and designed without considering the accessibility of people with disabilities. The central aim of the study has been to assess the role of urban design in promoting mobility for PWDs in the built environment. Social exclusion makes them become introverts hiding their individual behaviours; hiding in their houses making them feel safe and being aggressive. Economic opportunities: lack of employment, education and financial support pushes them to poverty line. Low political participation gives little chances to exercise their rights, moreover lack of representatives within political positions hinder them to be heard. Therefore, social exclusion, less economic opportunities, and low political participation consequently, lead to failures in affording social services and facilities, increase poverty and a voice to be heard giving them less access to urban environment.

This study found that built environment condition are the main barriers to the disabled access to services in the neighbourhood. Urban planning within Sinza neighbourhood does not affect much mobility for people with disability; the neighbourhood is physically permeable with a variety of routes that give choice to the users to jobs and social interaction which are key to the wellbeing of the PWD.; the neighbourhood is physically permeable with variety routes that give choice to the users on different destinations. This is seen through mixed land use within the neighbourhood and high-density settlement. In terms of connectivity the neighbourhood is not well connected, there is no segregation between disabled pedestrians and motorised traffic from one block to another through green spaces, most of public spaces are dead and others are used for private matters. Moreover, facilities such as sidewalks, paths, traffic signs, road signs, bollards, pavements, ramps and benches which are important for mobility of people with disabilities are given less attention during the design of infrastructure systems. In conclusion the built environment characteristics of Sinza neighbourhood results to exclusiveness, poor walkability and lack of connectivity hindering mobility for people with disabilities. It is argued that none engagement of planners in the implementation of neighbourhood plans contributes to the economic, social, and physical exclusion of individuals with PWDs. The role of planning professionals should extend to constructing their way of perceiving vulnerable groups in self-sustained neighbourhoods. By doing so, planning professionals would be the pioneers of inclusive and sustainable urban environments. Urban planners should look at the built environment and provide services which cater for all groups of people regardless of their limitation. Inclusive environment is an ideal slogan for urban development that is sustainable.

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