



Publisher: Scientific-Professional Society for Disaster Risk Management

International Journal of Disaster Risk Management



Article

Beyond Tokenism: Exploring the Experiences and Barriers of Persons with Disabilities in Disability-inclusive Disaster Risk Management in Mwanza City Council, Tanzania

Joseph Bukula^{1*} and Nicholaus Mwageni²¹ Department of Geography and Environmental Studies, University of Dodoma, Tanzania; josephmiszens@gmail.com; joseph.bukula@udom.ac.tz.² School of Engineering and Environmental Studies, Ardhi University, Tanzania; nicholausmwageni2012@gmail.com; nicholaus.mwageni@aru.ac.tz.

* Correspondence: josephmiszens@gmail.com; joseph.bukula@udom.ac.tz.

Received: 09 September 2025; Accepted: 27 October 2025; Published: 30 December 2025.

ABSTRACT

Persons with disabilities (PwDs) remain disproportionately vulnerable to disaster impacts due to systemic barriers and exclusionary practices in disaster risk management (DRM). Despite international frameworks such as Sendai Framework and United Nations Convention on the Rights of Persons with Disabilities (UNCRPD), as well as national policy commitments to inclusion, limited attention to disability-specific needs and lived experiences continues to hinder meaningful participation of PwDs in DRM processes. This study examined the inclusion needs, experiences, and barriers that affect the effectiveness of disability-inclusive disaster risk management (DiDRM) interventions in Mwanza City Council (MCC), Tanzania. A qualitative approach was adopted, involving 16 in-depth semi-structured interviews and 4 focus group discussions with PwDs and representatives of Organizations of Persons with Disabilities (OPDs). Data were analyzed thematically to identify patterns related to participation dynamics, attitudinal barriers, and institutional practices. Findings reveal that negative perceptions of disability, limited awareness among DRM officials, and tokenistic engagement of PwDs and OPDs constrain substantive participation and meaningful inclusion. The study highlights that PwDs are heterogeneous group with distinct needs, and neglecting these differences perpetuates exclusion and widens the policy – practice gap. The study is limited by its qualitative design, focus on a single city, and exclusion of certain disability types, which may affect generalizability. Key implications include the necessity for inclusive communication strategies, access to assistive technologies, equitable involvement of PwDs in decision-making, and enhanced support for OPD-led initiatives. By emphasizing the agency of PwDs, this research contributes to understanding both context-specific and generalizable patterns in urban DiDRM. Overall, the study advocates a shift from perceiving PwDs merely as a vulnerable group toward recognizing them as active contributors and essential actors in disaster risk reduction and management.

KEYWORDS

Disaster risk management (DRM); persons with disabilities (PwDs); urban resilience; lived experiences; inclusion needs.



Copyright: © 2025 by the authors.

Bukula, J., & Mwageni, N. (2025). Beyond Tokenism: Exploring the Experiences and Barriers of Persons with Disabilities in Disability-inclusive Disaster Risk Management in Mwanza City Council, Tanzania. *International Journal of Disaster Risk Management*, 7(2), 51–64. Retrieved from <https://internationaljournalofdisasteriskmanagement.com/index.php/Vol1/article/view/244>

1. Introduction

Disasters constitute widespread and severe disruptions to normal life, leading to injuries, loss of life, and damage to property, assets, and critical systems (CRED, 2019). Evidence consistently shows that the impacts of disasters are unevenly distributed across population groups: social, economic and environmental differences shape vulnerability and adaptive capacity, producing differentiated outcomes for distinct social groups (Twigg et al., 2011; UNDRR, 2023). For persons with disabilities (PwDs), these structural inequalities translate into heightened exposure, deeper impacts, and reduced access to recovery resources, which makes explicitly disability-inclusive disaster risk management (DiDRM) both a rights and resilience imperative (Jevtić et al., 2025).

Article 11 of the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) explicitly mandates States to take “all necessary measures to ensure the protection and safety of persons with disabilities in situations of risk, including situations of armed conflict, humanitarian emergencies, and the occurrence of natural disasters” (UN, 2006). Despite this commitment, implementation gaps remain widespread. According to the Global Survey Report on Persons with Disabilities and Disasters, approximately 16% of the world’s population lives with disabilities, with about 80% residing in the Global South (UNDRR, 2023). The same report reveals that 86% of PwDs have limited participation in disaster risk management (DRM) decision-making, reflecting a global pattern of exclusion. Although many countries have established disability-inclusive legal and institutional frameworks, practical implementation remains limited (World Bank, 2022; Twigg et al., 2018). These findings align with Jevtić, Cvetković, Gačić, and Raonić (2025) study that highlight both the persistent exclusion of PwDs from DRM and the need to couple legal commitments with practical, community-level mechanisms that build resilience. For example, a recent IJDRM review of vulnerability and resilience among persons with disabilities synthesizes evidence on barriers (architectural, informational, institutional) and suggests operational strategies for inclusive risk reduction.

Recent findings from UNDRR (2024) indicate that, while cities have made progress in resilience-building across several indicators, significant gaps persist in implementing comprehensive disability-inclusive disaster risk management (DiDRM). Systematic reviews in IJDRM show that social capital, community participation, and risk-informed governance are key levers for urban resilience yet the same reviews caution that formal systems often fail to institutionalize inclusion, producing policy–practice gaps at the municipal level (Jevtić et al., 2025). In addition, UNDRR (2024) and Pradhan, Kumar, and Nayak (2025) noted that these deficiencies are largely due to the lack of disability-disaggregated data, weak governance, socio-economic inequalities, limited awareness of disability and disaster risk reduction among policymakers, insufficient DRR knowledge among persons with disabilities and their organizations, low participation of persons with disabilities and organizations of persons with disabilities in DRR processes, and the absence of designated focal points for disability inclusion within local government structures.

Africa, the world’s second-largest and second-most populous continent, remains highly vulnerable to disaster risks. The region’s high exposure, combined with poverty and fragile systems, contributes to elevated disaster-related mortality (International Federation of Red Cross and Red Crescent Societies, 2020). To address these challenges, Africa has adopted several regional strategies aligned with global resilience agendas. The Africa Regional Strategy for Disaster Reduction was established to operationalize the Hyogo Framework for Action (HFA) 2005–2015 (Bhavnani et al., 2008), while the Programme of Action (PoA) for the Implementation of the Sendai Framework for Disaster Risk Reduction 2015–2030 continues to guide current initiatives (African Union, 2016). While regional strategies provide a policy scaffold, adoption at national and municipal levels remains uneven and implementation frequently lacks concrete mechanisms for disability inclusion (Bhavani et al., 2008; UNDRR, 2023). This is why city-level empirical studies are essential as they reveal how international and national commitments (e.g., UNCRPD, Sendai Framework) translate or fail to translate into local practices.

Tanzania, like many countries in Sub-Saharan Africa, faces multiple hazards including floods, droughts, epidemics, earthquakes, accidents, and storms exacerbated by rapid urbanization, unplanned settlements, environmental degradation, and climate change (URT, 2022). Persons with dis-

abilities in Tanzania are among the most marginalized and socially excluded groups (UNICEF, 2021). The 2022 Population and Housing Census shows that disability prevalence among Tanzanians aged seven years and above increased from 9.3% in 2012 to 11.2% in 2022, with 96.8% of PwDs residing on the mainland (URT, 2024). Disability prevalence is slightly higher in rural areas (11.5%) than in urban areas (10.6%). Over the years, Tanzania has adopted multiple disability-inclusive development measures, including policies, legislation, and national programs (URT, 2004; EAC, 2012). However, inadequate participation of PwDs in decision-making, limited public awareness of disability issues, and weak enforcement of disability-related laws continue to hinder progress (EAC, 2012). Similarly, several legal and institutional frameworks addressing disaster risks such as the National Disaster Management Policy (2004), the National Disaster Management Strategy, and the National Disaster Management Act No. 6 of 2022 have set policy directions towards disability-inclusive DRM (URT, 2022).

This paper presents an empirical study of disability-inclusive DRM in Mwanza City, Tanzania, focusing on the lived experiences of PwDs and the roles of Organizations of Persons with Disabilities (OPDs) in local DRM processes. The study examines how accessible infrastructure, early warning, institutional arrangements, and social networks interact to shape exclusion or inclusion in urban disaster risk contexts. By providing first-hand narratives alongside an analysis of governance arrangements, the study aims to move beyond descriptive accounts to identify practical, locally viable entry points for institutionalizing DiDRM in Tanzanian cities a contribution that complements recent IJDRM studies on inclusive, community-centred resilience such as socially-informed cash and community participation models (Cañete, Lisay, & Mahmud, 2025; Milenković, Cvetković, & Renner, 2024).

This study is guided by three research questions:

1. How do PwDs in Mwanza City Council experience and cope with disaster risk across preparedness, response and recovery phases?
2. What institutional, infrastructural and attitudinal barriers limit meaningful participation of PwDs and OPDs in city council DRM processes?
3. Which practical policy and programmatic measures can DRM actors implement to advance disability-inclusive resilience in Mwanza City Council and comparable urban contexts?

Unlike previous research that treats disability as a background vulnerability factor, this study explicitly (a) foregrounds the voices of PwDs in an East African urban setting, (b) maps how City/Municipal councils DRM processes include (or exclude) disability concerns in practice, and (c) identifies targeted, operational measures (institutional and community) that could be implemented by councils' actors to reduce exclusion. These three elements of voice, institutional mapping, and actionable city council recommendations, constitute the primary empirical and policy contribution of the paper.

This research is a qualitative, single-city case study focused primarily on physical and sensory disabilities (see Methods for inclusion/exclusion criteria). Consequently, while findings are analytically generalizable to similar urban contexts in the Global South, they do not claim statistical generalizability across all disability types or national settings.

2. Methods

2.1. Description of Study Area

This study was conducted in Mwanza City Council, the headquarters of Mwanza Region one of the regions in Tanzania with the highest number of reported harmful incidents against persons with disabilities (PwDs). Mwanza Region covers 256.45 km², of which 184.90 km² (72%) is dry land and 71.55 km² (28%) is covered by water. Mwanza City Council was established in 2000 and is one of eight (8) councils within the region (MCC, 2022).

Mwanza was purposively selected because it exceeds the national average proportion of PwDs, with a prevalence of 11.8%. In total, 332,682 individuals (male = 152,315; female = 180,367) live with various forms of disabilities (URT, 2024), making it the second region after Dar es Salaam with the largest number of PwDs in Tanzania. Compared to Dar es Salaam, Mwanza remains relatively under-studied in urban disaster research, limiting risk-informed and disability-inclusive decision-making at the city level.

According to the 2022 Population and Housing Census, Mwanza City has a population of 594,834 distributed across 153,226 households (URT, 2022b). Administratively, the city has a single division of Nyamagana which is subdivided into 18 wards and 175 streets.

Study sites were selected in consultation with local government authorities (LGAs) based on two criteria identified during a reconnaissance survey, the number of persons with disabilities and the frequency of hazards occurrence. Consequently, four (4) urban wards of Mkuyuni, Mbugani, Butimba, and Mabatini were selected as shown in a Figure 1. The selected wards are frequently affected by floods, strong winds, stormwater overflow, and localized rockfalls.

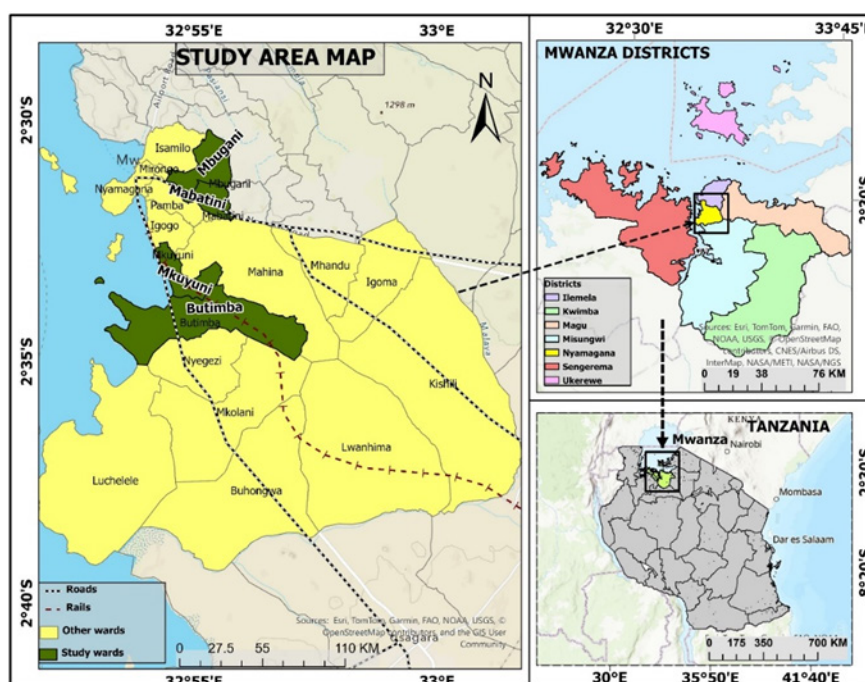


Figure 1: Map of the study area and sites

2.2. Data Collection

A qualitative case study design was adopted to explore inclusion-specific needs, barriers, and lived experiences of persons with disabilities influencing their participation in disaster risk management (DRM) processes. The case study design was appropriate for generating in-depth understanding of complex, context-specific social dynamics (Creswell & Poth, 2016; Yin, 2018). Data were collected between July 22 – August 30, 2025. Total of 16 in-depth interviews and 4 focus group discussions were conducted.

2.2.1. Study participants, inclusion and exclusion criteria

Participants were included if they met the following criteria: were persons with physical disabilities aged 18 years or older; had experienced at least one disaster in recent years; and were permanent residents of the selected study wards.

Participants were excluded if they had intellectual disabilities (as defined by WHO) and/or were unwilling to participate. Individuals with intellectual disabilities were excluded due to ethical chal-

Challenges related to obtaining informed consent and ensuring meaningful participation in lengthy qualitative interviews. This exclusion is acknowledged as a limitation because it narrows the scope of disability inclusion explored in this study. Recruitment was conducted purposively in collaboration with LGA officials, Organizations of Persons with Disabilities (OPDs), and local disability focal persons. This approach ensured access to diverse participants but may have resulted in under-representation of persons with less visible disabilities such as psychosocial or cognitive impairments.

2.2.2. Ethical consideration

Clearance for this research was first obtained from the University level, and later permission to conduct fieldwork in Mwanza City Council was granted by the Office of Mwanza Regional Administrative Secretary. Participation was voluntary, and all participants provided informed consent. Confidentiality and anonymity were maintained throughout the study.

2.2.3. In-depth interviews (IDI)

In-depth interviews were conducted with purposefully selected PwDs from the four study wards based on their ability and willingness to provide relevant information. The interviews aimed to capture inclusion-specific needs, barriers, and lived experiences that affect participation of PwDs in DRM. To achieve data saturation in qualitative studies, a minimum of twelve (12) interviews is generally considered sufficient (Clarke & Braun, 2013; Fugard & Potts, 2014; Guest, Bunce, & Johnson, 2006, as cited in Vasileiou et al., 2018). Accordingly, sixteen (16) IDIs were conducted, which was adequate given the study's scope. A semi-structured interview guide was developed to facilitate the process, covering topics such as personal disaster experiences, barriers to inclusion, awareness of DRR planning, and communication of risk information. All Interviews were conducted in Swahili, audio-recorded with consent, transcribed and translated to English, interviews data were supplemented with field notes.

2.2.4. Focused group discussions (FGDs)

Focus group discussions (FGDs) complemented the IDIs by enabling shared reflection among PwDs. The FGDs explored perceived barriers and needs for inclusion, awareness of existing DRR plans, participation in planning and implementation processes, and preferred modes of risk communication. As recommended by Burrows and Kendall (1997) as cited in Nyumba et al., (2017), three to four FGDs are sufficient to attain information saturation in qualitative research. In this study, four (4) FGDs were conducted, one in each selected ward, involving 28 participants. Each FGD comprised 6–8 participants, consistent with the acceptable range Krueger & Casey (2000), as cited in Nyumba et al., (2017). Participants were recruited through purposive sampling in collaboration with LGA leaders and local disability organizations. FGDs were facilitated by the lead researcher, supported by note-takers and, when necessary, sign-language interpreters to ensure inclusive participation. A structured FGD guide was used to ensure consistency across sessions, all FGDs were conducted in Swahili, audio recorded, transcribed and translated to English.

2.3. Data Analysis

All audio recordings were transcribed verbatim in Kiswahili and translated into English where necessary. Analysis followed thematic analysis informed by grounded theory principles, where Themes emerged from participants' narrations rather than from pre-conceived assumptions (Charmaz, 2008; Neuman, 2014). The analytical steps included i) Familiarization through repeated reading of transcripts; ii) Open coding to identify initial concepts; iii) Axial coding to group related codes into analytical categories; and iv) Theme development to identify overarching patterns.

Coding was conducted manually by the lead researcher. Researcher reflexivity was maintained to minimize bias, drawing on professional experience in DRR and disability inclusion. The qualitative sampling strategy aimed for depth, diversity, and analytical generalization, rather than statistical representativeness.

3. Results

3.1. Socio-demographic Characteristics of Respondents

The study engaged 44 participants through in-depth interviews (IDIs) and focus group discussions (FGDs). Results indicate that the majority of respondents were female (73%) compared to male (27%), suggesting that disability prevalence and visibility may be higher among women in the study area.

As shown in Figure 2, in terms of education levels, most respondents had attained secondary education (52%), followed by primary (30%), tertiary (14%), and informal education (5%). In addition, 80% of respondents are members of various organizations of persons with disabilities in the city, 20% are not affiliated with such organizations.

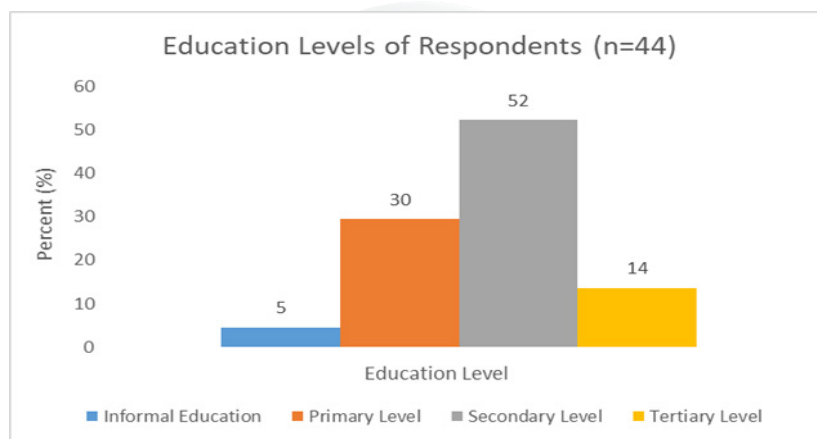


Figure 2: Education levels of respondents (N = 44)

As shown on Figure 3 main sources of income, findings indicate that, majority of respondents (73%) rely on small businesses as main livelihood option, followed by formal employment (18%), this might imply growth of small-medium sized business among respondents within study area.

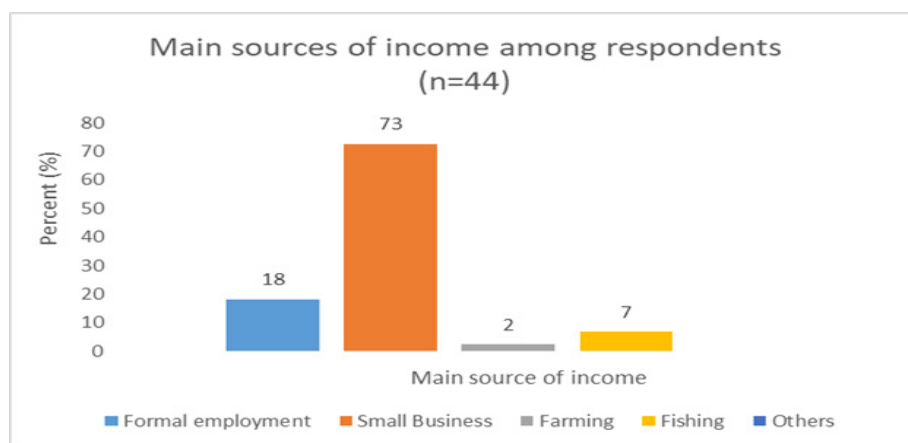


Figure 3: Percentages indicate proportion of respondents reporting main source of income (N=44)

3.2. Perceived Hazards Amongst Persons with Disabilities

Respondents identified floods, strong winds, earthquakes, building collapse, fire outbreaks, and road accidents as the most common hazards in their localities. These hazards reflect the urban risk profile of Mwanza, characterized by informal settlements and topographical vulnerabilities. The responses also demonstrate a basic awareness among PwDs of the risks surrounding them, signifying potential entry points for community-based disaster preparedness programs.

3.3. Lived experiences of disasters and emergencies among persons with disabilities

Lived experiences of disasters reflect the actual encounters PwDs face during emergencies. These experiences demonstrate how social networks, physical infrastructure, and risk communication systems shape survival and recovery. Three recurrent themes emerged

1. Role of social capital
2. Experiences relating to public infrastructure during disasters
3. Experiences with early warning systems

3.3.1. Role of social capital in disaster events

Participants described relying heavily on their existing social capital/networks, including family members and neighbors during disaster events. For instance,

"During last year's floods, if it was not for my neighbours I would have died, water reached inside at night... I panicked and screamed but my neighbours came to help... thought all my food supplies were washed away..." (ID1 – 4)

"...My family members they know my needs, so even during that flood, I was not affected much because they always prioritize me in the family..." (FGD – 1)

Another participant pointed that, in most cases the government do not offer enough aids and supplies to those affected by flash floods, primary support often comes from neighbours and church members.

"... When that strong wind came, I was all alone in the house, my roof as you can see is new after the previous one was blown away that day... it was only my pastor and church members helped me to repair this..." (IDI -13)

"...I never heard of disaster management committee in my area, in floods of march 2023 we helped ourselves as neighbours..." (FGD – 2)

These experiences underscore the importance of informal support systems in the absence of formal institutional mechanisms. However, reliance on social capital also highlights gaps in inclusive disaster response and preparedness, reinforcing exclusion for PwDs. This aligns with prior studies emphasizing social networks as survival mechanisms for marginalized groups (Smith et al., 2012). Strengthening institutional support and integrating OPDs into local DRM structures can complement social networks and reduce over-reliance on informal coping.

3.3.2. Experiences relating to public infrastructures during disasters

Respondents reported significant challenges navigating roads, bridges, and other public infrastructures, especially during floods.

"... During 2020 floods, if failed to cross the road because it was flooded...all activities are on the other side, so was paying 4,000 shillings for someone just to carry me... that was like my whole day profit..." (IDI – 11)

"...during rainy season I don't open the grocery... I just stay inside until the flood risk passes..." (IDI – 5)

It was also found that, topography and urban design also constrain mobility:

"... with my clutches, and these our public buses, it is so hard to navigate around the city even on normal days, let alone during floods..." (FGD – 1)

"...When the water rises, the roads become mud. My wheelchair gets stuck..." (FGD – 2)

Urban planning and public infrastructure must incorporate universal design principles and ensure accessibility to enhance resilience and inclusion of PwDs.

3.3.3. Experiences with early warning systems

Participants highlighted that, traditional risk communication methods, such as public address systems, radio broadcasts, and sirens, are ineffective for significant portions of the persons with disabilities in communities. A participant with a hearing impairment narrated that,

"I can only know there is a flood when I see my neighbours running or when the water enters my house. I am unable to hear any warnings" (IDI – 14)

These findings indicate a critical need for multi-modal risk communication strategies, including visual alerts, text messages, and community-based messengers, to ensure all PwDs receive timely information. Early warning systems must be inclusive and accessible, integrating multiple channels to reach persons with sensory, cognitive, or mobility impairments.

3.4. Inclusion needs of persons with disabilities in disaster risk management

During interviews and FGD, majority of PwD expressed the need for DRM actors to understand and account for their differentiated needs in all DRM Phases. Results indicates that, persons with disability are quite aware of their needs prior to, during and post disasters. The following key inclusion needs emerged

1. Access to Assistive Technology and Devices

Participants highlighted that, access to assistive devices is critical for enhancing independence and disaster resilience.

"... I know there are assistive devices special for us with hearing impairments, but in our poor countries accessing these devices is a challenge to many including myself..." (IDI – 14)

Ensuring availability and accessibility of assistive technology is essential for equitable participation of PwDs in DRM planning, preparedness, and response.

2. Active Involvement and Participation in Decision Making

Persons with disabilities believe that, they are not to be considered as just vulnerable group that needs assistance, but should be viewed with their skills and knowledge that they can contribute in disaster risk reduction. This emphasizes the need of equipping and using persons with disabilities as resource persons in disaster risk reduction rather than just a vulnerable group.

"... and yes, labelling us vulnerable makes us weak, some of know how can community prepare for disasters... but we are not involved by the committees..." (FGD – 2)

"... maybe they think we are unfit for those roles..." (FGD – 2)

"...I'm a retired local government official that is why sometimes I am involved, but for others with disabilities, they are not considered and involved in disaster related activities... but it is very important for us to be involved and participate" (IDI – 6)

Consideration, involvement and active participation in disaster related activities, decision making and planning was highlighted by respondents, they are aware of the relevancy of meaningful participation especially within communities they live in. Inclusion of PwDs as active participants

and resource persons in DRM planning strengthens community preparedness and ensures interventions are contextually appropriate.

3. Timely Communication and Information Sharing

Participants noted the critical need for accessible, timely, and actionable information to improve preparedness and response.

"... timely sharing and access to information is very crucial for us especially in our area..." (IDI – 14)

Multi-channel, inclusive risk communication strategies like incorporating text, visual alerts, and community messengers are necessary to ensure all PwDs receive life-saving information in times of disasters and emergencies.

4. Protection and Psychosocial Support emerged

Protection from disability-based violence and the availability of accessible reporting mechanisms were emphasized as key inclusion needs. Participants also highlighted the importance of psychosocial support during and after disasters.

Integrating protection and psychosocial support into DRM interventions enhances resilience and safeguards the rights and dignity of PwDs during emergencies.

3.5. Barriers and challenges meaningful participation of persons with disability in disaster risk management

Perspectives from PwDs, Organizations of Persons with Disabilities (OPDs), government officials, and NGOs revealed that barriers to inclusion stem primarily from attitudinal, institutional, and communication challenges. The findings suggest that exclusion is not merely an oversight but is rooted in deep-seated and partially unaddressed vulnerabilities shaped by attitudinal, institutional, and communicational barriers.

3.5.1. Attitudinal barrier

The most pervasive barrier identified was attitudinal. Many government officials and community members continue to view PwDs through a charity or medical lens, perceiving them as helpless victims in need of protection rather than as capable rights holders and valuable contributors to disaster planning. This paternalistic mindset undermines the core principle of participation. One NGO official candidly remarked,

"...it is challenging to bring them into technical planning meetings. We try to consider their needs, but it is often faster for us to make the decisions on their behalf..." (KII – 3)

This perspective directly contradicts the "Nothing About Us, Without Us" mantra championed by the global disability rights movements. Addressing attitudinal barriers requires awareness campaigns, training of DRM personnel, and inclusion of PwDs as partners, rather than passive beneficiaries, in planning and decision-making.

3.5.2. Institutional barriers

These attitudinal barriers are reinforced by institutional obstacles. As noted earlier, there are no formal, mandated platforms for systematic consultation between the City Disaster Management Committees and OPDs for disaster risk management issues.

Meetings, when they occur, are mostly held in physically inaccessible venues, at inconvenient times, and without provisions such as sign language interpretation or materials in Braille, thereby creating insurmountable barriers for many PwDs.

“...sometimes when invited to meetings, they only budget for one person without my interpreter I cannot fully participate in those meetings...” (FGD – 4)

Establishing formalized, inclusive consultation mechanisms, accessible venues, and resources (interpreters, Braille, accessible materials) can significantly enhance participation and inclusion in DRM processes.

3.5.3. Communication and information barriers

Furthermore, information about planning processes and opportunities for engagement is not disseminated through accessible channels, meaning many PwDs are unaware that such opportunities even exist. This combination of factors creates a closed loop where PwDs are institutionally excluded from the very processes that determine their safety and survival.

Inclusive DRM requires multi-modal, accessible communication strategies, such as visual alerts, text messaging, community outreach, and OPD-led information dissemination, ensuring PwDs are fully informed and able to participate.

4. Discussion

Findings on lived experiences of persons with disabilities, inclusion needs and barriers hindering effective disaster risk management show that lived experiences of PwDs during disasters are shaped profoundly by socially constructed barriers rather than their individual impairments. The inaccessible built environment, systemic exclusion from official information channels, and prevalent attitudinal barriers within the community and among duty-bearers combine to create a state of heightened and distinct vulnerability. These challenges force PwDs to rely heavily on fragile, informal support networks for their safety and survival, highlighting a failure of the formal system to provide equitable protection for all citizens. Jevtić et al. (2025) similarly observe that informal social networks often sustain persons with disabilities during emergencies, but overreliance on these networks—without corresponding institutional inclusion—reinforces unequal protection and shifts risk onto already marginalized groups.

Furthermore, these experiences of persons with disabilities emphasize the relevancy of social capital both as a preparedness, response and recovery mechanism amongst persons with disabilities; these findings are similar to Smith et al. (2012). Key inclusion needs of persons with disabilities are access to assistive technology and devices, consideration, involvement and active participation in disaster-related activities, decision-making and planning, communication and information sharing, and protection and psychosocial support; these results conform with the study by King et al. (2018). Consistent with this, Jevtić et al. (2025) argue that assistive technologies should be treated as resilience-building interventions because they expand mobility, information access and meaningful participation in preparedness activities for PwDs.

In addition, findings show similarity patterns in terms of barriers that are faced by persons with disabilities compared to studies by Gartrell et al. (2020), Simpson et al. (2020) and Twigg et al. (2018), which identified institutional, communicational and attitudinal barriers as hindering forces facing persons with disabilities. Milenković et al. (2024) reinforce this by demonstrating that resilience assessments must explicitly incorporate indicators of physical accessibility, mobility and communication reach, as these structural constraints are quantifiable drivers of vulnerability that limit household capacity to act during disasters.

Likewise, Pradhan, Kumar and Nayak (2025) highlight that inclusive disaster governance requires integrated, multi-channel early-warning systems and coordinated community mechanisms—echoing the need for multimodal communication approaches identified in this study.

Lastly, achieving meaningful participation is a complex process marked by both synergies and tensions. The primary enabler of inclusion is the persistent advocacy and specialized knowledge of

Organizations of Persons with Disabilities (OPDs). However, their efforts are severely hampered by tokenistic engagement from authorities, a lack of operational resources, and the absence of formal structures for collaboration; these are similar to findings by Gartrell et al. (2020) and Rohon et al. (2015). Evidence from Cañete et al. (2025) shows that programs which formalize and resource community-led mechanisms—such as inclusive cash-transfer models and OPD-driven engagement—can shift practice from symbolic consultation toward operational accountability and sustained inclusion.

Overcoming these barriers is essential to transition from symbolic consultation to substantive, rights-based participation in urban DRM governance. Strengthened partnerships between OPDs and local DRM institutions, supported by clear mandates, resources and monitoring frameworks, can unlock the synergistic potential of government–OPD collaboration. This aligns with Milenković et al. (2024) and Pradhan et al. (2025), who emphasize embedding measurable, inclusive indicators and coordinated governance practices as foundations for durable and equitable disaster resilience.

5. Conclusions

Social capital and informal support networks remain critical coping mechanisms for persons with disabilities (PwDs), particularly in contexts where formal disaster risk management (DRM) systems inadequately safeguard their safety and dignity. This study identified several essential elements for achieving meaningful and sustainable disability inclusion in DRM, including access to assistive technologies and devices, equitable participation in decision-making processes, inclusive communication systems, and provision of psychosocial support. While Organizations of Persons with Disabilities (OPDs) have significant potential to advance transformative inclusion through advocacy and technical expertise, their contributions are often undermined by tokenistic engagement from authorities, limited operational resources, and weak institutional linkages. Strengthening partnerships between OPDs and local DRM institutions, supported by clear mandates, adequate resourcing, and robust monitoring frameworks, is critical to bridging the policy–practice gap. Transitioning from symbolic to substantive engagement will not only enhance the participation of PwDs in DRM processes but also contribute to the realization of inclusive, resilient, and rights-based urban systems in Tanzania.

6. Limitations and future research direction

This study is subject to several limitations that should be acknowledged. Its qualitative design, relatively small sample, and focus on a single urban center limit the extent to which the findings can be generalized beyond the study context. Building on these limitations, several directions for future inquiry emerge. A nationwide quantitative survey involving persons with disabilities would help determine the prevalence and distribution of the challenges identified here, while also establishing a national baseline for disability-inclusive disaster preparedness and governance. Further, comparative research across multiple Tanzanian cities—such as Dar es Salaam, Dodoma, Arusha and Mwanza would enable a deeper understanding of how variations in urban form, institutional capacity, and hazard exposure shape the implementation of DiDRM. Finally, future studies should examine the role of emerging technologies in enhancing accessibility, communication, and early warning for persons with disabilities, with particular attention to context-appropriate, scalable solutions capable of strengthening inclusive disaster risk governance

Author Contributions: This study was carried out by Joseph Bukula from conceptualization, preparation of research protocols, data collection, analysis, drafting of the manuscript, reviews and edits. Nicholas Mwageni supervised the study, reviewed and edited the manuscript.

Funding: This study received funding from the University of Dodoma, Tanzania.

Acknowledgements: We thank all participants who consented to take part in this study by providing their valuable insights and experiences that shaped this work.

Conflicts of Interest: The authors declare no conflict of interest.

7. References

1. African Union. (2016). *Programme of action for the implementation of the Sendai Framework for Disaster Risk Reduction 2015–2030 in Africa*. Addis Ababa, Ethiopia.
2. Bhavani, R., Vordzorgbe, S., Owor, M., & Bousquet, F. (2008). *Status of disaster risk reduction in the Sub-Saharan Africa region*. The World Bank.
3. Cañete, R. M., Lisay, S. K., & Sayadat Mahmud, M. N. (2025). Project DINGGIN: Empowering communities through risk-based and inclusive cash transfer in disaster-prone areas in Bangladesh and Philippines. *International Journal of Disaster Risk Management*, 7(1), 339–366.
4. Centre for Research on the Epidemiology of Disasters. (2019). *Human cost of disasters: An overview of the last 20 years (2000–2019)*. Centre for Research on the Epidemiology of Disasters.
5. Charmaz, K. (2008). Grounded theory. In J. Smith (Ed.), *Qualitative psychology: A practical guide to research methods* (2nd ed., pp. 81–110). SAGE Publications.
6. Creswell, J. W., & Poth, C. N. (2016). *Qualitative inquiry and research design: Choosing among five approaches*. Sage Publications.
7. East African Community. (2012). *East Africa Community policy on persons with disabilities*. EAC Secretariat.
8. Gartrell, A., Calgaro, E., Goddard, G., & Saorath, N. (2020). Disaster experiences of women with disabilities: Barriers and opportunities for disability-inclusive disaster risk reduction in Cambodia. *Global Environmental Change*, 64, 102134.
9. International Federation of Red Cross and Red Crescent Societies. (2020). *World disasters report 2020*. Geneva, Switzerland.
10. Jevtić, M., Cvetković, V. M., Gačić, J., & Raonić, Z. (2025). Factors of vulnerability and resilience of persons with disabilities during disasters: Challenges and strategies for inclusive risk reduction. *International Journal of Disaster Risk Management*, 7(1), 93–113.
11. King, J., Edwards, N., Watling, H., & Hair, S. (2019). Barriers to disability-inclusive disaster management in the Solomon Islands: Perspectives of people with disability. *International Journal of Disaster Risk Reduction*, 34, 459–466.
12. Milenković, D., Cvetković, V. M., & Renner, R. (2024). A systematic literary review on community resilience indicators: Adaptation and application of the BRIC method for measuring disaster resilience. *International Journal of Disaster Risk Management*, 6(2), 79–104.
13. Mwanza City Council. (2022). *Mwanza City Council strategic plan 2021/22–2025/26*. Mwanza, Tanzania.
14. Nyumba, T., Wilson, K., Derrick, C. J., & Mukherjee, N. (2018). The use of focus group discussion methodology: Insights from two decades of application in conservation. *Methods in Ecology and Evolution*, 9(1), 20–32.
15. Pradhan, B., Kumar, S., & Nayak, D. (2025). From vulnerability to resilience: A systematic review of Odiha's integrated approach to disaster risk reduction. *International Journal of Disaster Risk Management*, 7(1), 519–532.
16. Ronoh, S., Gaillard, J. C., & Marlowe, J. (2015). Children with disabilities and disaster risk reduction: A review. *International Journal of Disaster Risk Science*, 6, 38–48.
17. Simpson, N., Perez, R., & Goldberg, M. (2021). Semi-structured interviews on disaster and emergency preparedness for people with disabilities in two states in Mexico. *Natural Hazards*, 106(1), 1037–1064.
18. Smith, F., Jolley, E., & Schmidt, E. (2012). *Disability and disasters: The importance of an inclusive approach to vulnerability and social capital*. Sightsavers.
19. Twigg, J., Kett, M., & Lovell, E. (2018). *Disability inclusion and disaster risk reduction*. ODI Brief Note, 1–12.
20. Twigg, J., Kett, M., Bottomley, H., Han, L., & Nasredin, H. (2011). Disability and public shelter in emergencies. *Environmental Hazards*, 10(3–4), 248–261.
21. United Nations Children's Fund. (2021). *A situational analysis of children and young people with disabilities in Tanzania Mainland and Zanzibar*. Dar es Salaam, Tanzania.
22. United Nations Office for Disaster Risk Reduction. (2023). *Global survey report on persons with disabilities and disasters*. Geneva, Switzerland.
23. United Nations. (2006). *Convention on the Rights of Persons with Disabilities (CRPD)*. Geneva, Switzerland.
24. United Republic of Tanzania. (2004). *National policy on disability*. Ministry of Labour, Youth Development and Sports.

25. United Republic of Tanzania. (2022). *National disaster management strategy 2022–2027*. Prime Minister's Office.
26. United Republic of Tanzania. (2022b). *The 2022 population and housing census: Administrative units population distribution report; Tanzania Mainland*. Ministry of Finance, Tanzania National Bureau of Statistics.
27. United Republic of Tanzania. (2024). *The 2022 population and housing census: Basic demographic and socio-economic profile; Tanzania Mainland*. Ministry of Finance, Tanzania National Bureau of Statistics.
28. Vasileiou, K., Barnett, J., Thorpe, S., & Young, T. (2018). Characterising and justifying sample size sufficiency in interview-based studies: Systematic analysis of qualitative health research over a 15-year period. *BMC Medical Research Methodology*, 18, 1–18.
29. World Bank. (2022). *Inclusive approaches to disaster risk management: A qualitative review*. The World Bank.
30. Yin, R. K. (2018). *Case study research and applications* (6th ed.). Sage.



