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Sanitary Provisions for Persons with Disabilities in the 21st Century and Bridging the Gap through Collaborative Researches

By

Gilliet Chigunwe

Research Article

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Gilliet Chigunwe

Zimbabwe Open University, Faculty of Applied Social Sciences, Department of Disability Studies and Special Needs Education. P Bag 984, Bindura, Zimbabwe.

Email: gchigunwe@gmail.com, Phone: (263) 773 274 013

ABSTRACT

The study intended to explore as to what extend persons with disabilities are included in sanitary accessibility, disaster management and prevention as well as in mitigating against environment hazards. To achieve this, the following questions were formulated; Are people with disabilities rehabilitated or habilitated in environmental sustainability? Do people with disabilities participate in the environmental sustainability planning and programmes implementation? To what extend are they included in educational campaigns against environmental sustainability? Do they access basic services of safe water and toilets? Descriptive survey method was used for this research and data was analysed in a narrative form. Convenient sampling and snow bowling method was used to select persons with disabilities and their families who participated in this study. Literature review showed that people with disabilities are among the most vulnerable and least equipped to deal with environmental hazards and impact of climate change in most African and Asian countries. Findings indicated that people with disabilities in Zimbabwe are excluded from accessing sanitary infrastructures and participating in planning and implementation of environmental sustainability programmes. They have relatively poor access to basic services and these include accessibility to safe water and toilets. Collaborative research by universities can go a long way in alleviating challenges faced by vulnerable persons in the communities that they serve. Combating life threatening diseases is one of the global Millennium Development Goals (MDGs) to be achieved by the year 2015. Thus through various researches on appropriate sanitary provisions, universities can do much to inform policy as well as to help their government to pursue objectives and strategies that will guarantee the delivery of optimal outcomes of MDGS in the shortest time possible and at a reasonable cost. Through research conferences and other collaborative approaches, universities can facilitate the formulation of appropriate and sensitive sanitary facilities.

Keywords: Sanitary infrastructures, Accessibility, People with disabilities, Environmental sustainability, Climate change.

BACKGROUND OF THE STUDY

For more than a decade, climate change, disaster insecurity, water and sanitation insecurity and energy insecurity have been acknowledged as salient public health issues (Jara, 2009; Hartwell, 2010; Mc Parlane, 2010; Sheffield and Landrigan, 2011). Whilst this is so, people with disabilities largely remain unaccounted for in WHO reports on climate change: A 2009 report on climate change and vulnerable population for instance fails to include people disabilities. Instead, using a purely medical terminology that excludes many people with disabilities the report states; "Health effects are expected to be more severe for elderly people with infirmities or pre- existing medical conditions", (WHO, 2009). While the international assessments acknowledge certain demographic traits such as age, gender and ethnicity, they fail to acknowledge people with disabilities. Indeed failure to acknowledge people with disabilities pervades the discourse on climate and health; a continued omission that threatens their well- being (Noji, 2012).

The World Bank observed that, the proportion of people with disabilities is 20% among the poor. In post-conflict countries the overall figure exceeds twenty percent implying that physical disabilities which are a result of conflicts are significant world –over ((Mpofu, 2011, World bank 2013; Tomasevski, 2014). Like some countries in Africa, Zimbabwe has experienced political upheavals and conflicts which have seen some people developing physical disabilities. Such conflicts have seen erosion of the economy in the country causing poverty among the general majority. The situation has been exacerbated by erratic and unreliable rainfalls that have made many people face challenges in accessing safe and clean water for drinking as well as water for general use. The World Vision a Nongovernmental organization (NGO) implemented some projects in Zimbabwe aimed to improve the health and quality of life amongst the public, especially the poor, vulnerable children and general communities at large. This was

achieved by improving access to water, sanitation services and promotion of good hygiene practices. Ventilated latrines were constructed with hand washing facilities in households and schools.

With this background, the study intended to find out the inclusion of persons with disabilities on such issues of environmental sustainability. The observation is that, while NGOs and Government of Zimbabwe make efforts to protect citizens from environmental hazards, people with disabilities are in most cases left out. It has been observed that in most countries, there are no constitutional and legal provisions for persons with disabilities. However, it is fitting that the first major international human rights treaty of the 21st Century should focus on disability: The International Convention on the Rights of Persons with Disabilities, especially article 24 on the right to education, must now serve as inspiration and common standard of achievement in changing and amending national laws (AMNESTY International, 2013; Save Children, 2008). People with disabilities have experienced discrimination practices in social education and employment sectors for a very long time and this has caused most of them to be poor.

Zimbabwe has nevertheless made efforts in putting in place inclusion policies and these include the Disabled Persons Act (1992) revised 2006 which advocates against discrimination practices in all levels of society. One however, wonders as to what extend inclusionary policies in Zimbabwe has seen the inclusion of persons with disabilities in sustainable developments and accessibility as is the case of access to water and toilets. This study was carried out in Mashonaland Central Province. Mashonaland Central is one of the 10 provinces of Zimbabwe. It is located in the Northern part of the country and has 8 geographical districts. Part of Mashonaland Central region lies in the agro ecological region 5, characterized by low unreliable and erratic rainfall in this last decade. Some districts in this province face extreme alternating weather conditions of floods and drought, as is the case with Muzarabani district. People with physical disabilities are part of the population in these districts.

According to the Zimbabwe Population Census (CSO), (2012) approximately 350 000 People with Disabilities (PWDs) were identified, a figure which equates to 2, 9% of the population. This figure is further validated by the Poverty Assessment Study Survey (PASS) 2003 which showed that nationally, 3 percent of people were disabled. The rural areas had a slightly higher prevalence of persons with disability than urban areas. The main disability found at the national level in the study was physical disabilities which attributed to mobility challenges, followed by sensory disabilities, mostly visual impairment. Zimbabwe has however put in place policies that seek to improve the quality of life for people and this includes promoting healthy living as well as prevention and management of disabilities. This decade for instance has seen a change in the epidemiology of disability in Zimbabwe, from those arising as a result of polio, leprosy, and land mines for example, to those related to peri-natal trauma such as cerebral palsy. Other common disabilities are a result of road traffic accidents, spinal cord injuries, amputations, age related impairments and home accidents, especially among children. However, rehabilitation services in Zimbabwe have expanded across the country with almost every district having purpose built rehabilitation department. Both rehabilitation technicians and physiotherapist are being trained locally. Of interest to note is that, Zimbabwe has a very strong Community Based Rehabilitation (CBR) programme, which is however being constrained by lack of transport, in particular, motor cycles, which enable the rehabilitation assistants to get to the hard to reach areas (Souflas, etal, 2011). While these rehabilitation programmes are real, I have noted with concern that people with disabilities are among the most vulnerable and least equipped to deal with environmental hazards and impact of climate change in Zimbabwe. In view of this background, the question then is: Are people with disabilities rehabilitated or habilitated in environmental sustainability. To answer this question the following sub questions were formulated to ascertain as to what extend people with disabilities are included in disaster management prevention as well as in mitigating against environment hazards:

- Are people with disabilities included in disaster management programmes?
- To what extend are they included in educational campaigns against environmental sustainability; disaster management?
- Do they access basic services of safe water, sanitary facilities and other hygiene services?

LITERATURE REVIEW

Health and Access to Water

United Nations Committee on Economic, Social, and Cultural Rights assert that, an individual's right to water includes sufficient, safe, acceptable, physically accessible and affordable water for personal and domestic issues, (UN Doc, 2011). Fulfilment of the right to water requires water that is available, of sufficient quality, and accessible. Water availability is defined by World Bank (2006) as having enough water for personal and domestic issues, including food preparation, sanitation, and washing clothes. Water quality is defined as being free from substances, including microorganisms, chemicals, and other hazards that threaten a person's health. Finally, water accessibility is

defined as physical and economic access to water (World Bank, 2006). Thus, a person should have enough water for personal and domestic issues (water availability) and this water should be safe (water quality), regardless of cost (water accessibility). For many in India, there are threats to all three elements of an individual's right to water: a decrease in water availability, a lack of access to water—particularly in rural areas, and potential threats to water quality (Sevil et al, 2011). The government of India has long recognized the lack of access to clean water as a major problem. Thus under the Indian Constitution (2006), water supply and sanitation are the responsibility of each respective state within India. Over and above, improved health was found to be associated with participation in hygiene classes, suggesting that health education plays an important role in the effectiveness of water improvement programs.

Sanitary Conveniences and Access

Community participation in health programs in the 1990s documented reductions in the incidence of diarrhoea in Maharashtra (Sevil et al, 2011). In other words, improved health can be found to be associated with community participation in hygiene classes and this suggests that health education may play an important role in the effectiveness of sanitation improvement programs. What this entails is that, provision can only be of quality if it accommodates all persons in society including the most disadvantaged such as those with disabilities. People with disabilities means people who have an impairment of hearing or sight or an impairment which limits their ability to walk or which restricts them to using a wheelchair (Government of Ireland, 2005). Thus provision for sanitary accommodation for people with disabilities should be made on the same basis as provision is made for other users of the buildings, that is, if sanitary accommodation is only provided for staff, then provision should be provided for staff with disabilities. (Whether or not any member of the present staff is disabled), whereas, if sanitary accommodation is provided for customers or visitors to the building, provision should also be made for customers or visitors with disabilities (ibid). The implication is that, people with disabilities should be included at all levels of sustainable developments.

People with Disabilities, Environmental Hazards and Sustainable Development

People with disabilities are among the most vulnerable and least equipped to deal with environmental hazards and shocks such as floods, drought and the impacts of climate change.

It is estimated that there will be at least 200 million people (18 million people with disabilities) displaced by climate events by 2050 (Skoufias et al., 2011). This suggests that people with disabilities are among the most vulnerable and least equipped to deal with environmental hazards and shocks such as floods, drought and the impacts of climate change. Such shocks can plunge many of persons with disabilities into poverty or into developing multiple disabilities. Poverty is not only a root cause of disability but disability exacerbates poverty even further (Sight savers, 2013). The implication is that, limited access to social and environmental participation prevents people with disabilities from responding to hazards and managing risk. Sight savers (2013) observed a number of threats that make people with disabilities more vulnerable, and these include financial insecurity, lack of inclusive accessible water, sanitation and hygiene services. The argument is that, people with disabilities are left out by able-bodied people in all areas of development and sustainability. Thus severe physical disabilities or sensory disabilities such as blindness can be caused by neglected tropical diseases which have been linked to poor hygiene, unsafe drinking water and access to poor sanitary facilities.

Wolbring (2009) asserted that the health status of millions of people including people with disabilities and the prevalence of disabilities are projected to be affected by climate change through increases in malnutrition, increased death, diseases and injury due to extreme weather events, increased burden of diarrheal diseases and the altered distribution of some infectious diseases. This means that disability is both a cause and consequence of poverty, yet domestic and international policy makers as well as stakeholders have not yet recognized or prioritized this issue within international and national development efforts (DFID, 2000).

International development efforts such as the agreements at the World Summits need to prioritise inclusion of vulnerable individuals in environmental sustainability issues. The IPCC (2007) reports revealed that the impact of climate change (extreme weather, sea level changes and agriculture productivity changes, leading to food insecurity) will affect the world's poorest people. People with disabilities especially those with profound sensory and physical disabilities are likely to be affected more as they are the most vulnerable to environmental degradation and changes.

Persons with Disabilities and Disaster Management

Citing a link between poverty and climate change, energy scarcity and water and sanitation insecurity, Wolbring and Leopatra (2012) acknowledge groups such as women, and indigenous people as uniquely affected by climate change. It is understood that people with disabilities are especially vulnerable to climate change, energy scarcity,

water and sanitation insecurity (Davis, Hansen and Mincin, 2012). While people with disabilities are differently affected, they are often at higher risk in all phases of a disaster, from exposure to risk and risk perception to preparedness behavior, warning communication and responses (Department of International Development, 2000). This implies physical, psychological, social and economic impacts; emergence response and ultimately to recovery and reconstruction. Those living in poverty in most developing countries are facing reduced access to clean water, fertile soils and suitable growing conditions for cropping and livestock as well as to fuel-wood and other energy sources (Care International, 2009). Such implies economic and food insecurity among persons with disabilities. This contributes to ill health and malnutrition and the latter may result to long term or permanent impairments.

There are strong links between childhood malnutrition and acquiring impairments. According to UNICEF (2010); WHO and World Bank (2011), 15.9 of Daily Adjusted Life Years (DALYs) worldwide are attributed to childhood malnutrition and malnutrition is estimated to cause about 20 per cent of impairments. This suggests that, people with disabilities face real barriers in accessing societal provisions and most of their voices are never heard due to lack of educational empowerment and poverty. The WHO and World Bank (2011) has it that 6.8 per cent of DALYs worldwide are attributable to poor water and sanitation and personal and domestic hygiene. Thus as food and water resources become increasingly insecure, it is anticipated that conflict attributable to climate change will increase. Hence Bongo et al., (2013) suggest the adoption of a right- based approach that is inclusive of persons with disabilities to food security, water rights and sustainable agriculture. Such an approach may assist in ensuring appropriate development and utilization of sanitary facilities that are inclusive to all as well as in preventing crisis.

METHODOLOGY

Descriptive survey method was used for this research. We used purposive sampling and snow bowling to select twenty persons with disabilities whom were involved in focus group discussions and interviews. We used snow-bowling method to select 10 parents of children with disabilities whom we interviewed in Mashonaland Central Province in Zimbabwe. Data was analysed using narrative descriptions.

Data Capture and Analysis

Using different data collection tools, including the in-depth interviews, focus group discussions, journalizing and direct observations researcher collected evidence, on the following variables:

- Challenges of access to sanitary infrastructures by persons with physical disabilities.
- Current status of community participation of persons with disabilities in disaster management programmes and decision making.
- Access to information on environmental sustainability.
- Sources of evident were documented and these included journalizing and direct observation by researcher. Single interviews and group interviews were done and the perceptions of these various groups were analysed to determine discernible data patterns based on the main variable of the study.

FINDINGS, EXPERIENCES AND PERCEPTIONS

a. Challenges of Access to Sanitary Facilities

Views of participants on issues of access to sources of water such as boreholes, wells, tape water and access to toilets were sought. There was wide evidence from the experiences of people with physical disabilities that unlike their able-bodied counterparts, they did not have substantial or equal access to sanitary facilities. Inaccessibility was expressed by a number of respondents. Some of the sentiments are captured below:

- Boreholes are unfriendly to us people in wheelchairs.
- Whoever designed boreholes never thought of our existence.
- Blair toilets are worse, we can't access them.
- It is not easy to access domestic water facilities; they are too high for us dwarfs and those in wheelchairs.
- The school toilets are not easy for my daughter to access whilst in wheelchair. She ends up crawling and the toilet floors and chambers will be dirty as they are used by the whole school.
- Blair toilets at school are difficult to access by my child who is in wheelchair. The mother spends the day at school so that she assists the child whenever she needs to go to the toilet. She sits at a nearby distance where she is easily summoned by the teacher when our child needs to go to toilet.

- Am pained by the fact that my child's condition does not have a place in this world. All sanitary facilities exclude her.
- Toilets sits in the home are too high so he struggles to sit. We used to assist him when he was young but he is now a grown up boy. Sinks are too high too, so much as we may want to develop independent skill in the child, and facilities in the home make it so difficult.

b. Current status of community participation

Participants expressed their hurtful experiences over exclusionary practices that the micro and macro society does. Here are some of their views;

- We are not aware of the existence of such programmes in our communities. You are just telling us now of their existence.
- We never participate in our capacity as people with disabilities because we are never invited.
- Personally, I have never come across stakeholders who request for my views.
- Mother, to society we are incapables, we can't make significant contributions.
- We are viewed by society as those who are cursed. The same as the situation in history where persons with leprosy were isolated from main society.
- Nobody is interested in visiting and involving us so that they find out how much knowledge we have. Even you, you are here because you need information from us for the purpose of your research. Otherwise you wouldn't be here.

c. Access to information on environmental sustainability

Participants' perceptions were sought about their level of access to information on sustainable development. Respondents cited a number of barriers which included physical barriers, societal and main one was attitudinal barrier. Some of their view is presented below;

- I have never attended an awareness campaign workshop. Are such workshops carried out here in Bindura?
- I have personally not attended one but on issues of agriculture, I tune in on 'Murimi wanhasi' Programme. (Literally meaning; 'Today's Farmer' Programme) on Zimbabwe Broadcasting Corporation.
- I have noted that people of our caliber are never invited to such workshops. The belief is we are useless.

DISCUSSION

The above responses clearly indicate that people with disabilities are excluded in community development programmes. More so, the response pattern reveal that people with disabilities are not involved or included in issues of sustainable development both at community level to national level by stakeholders, especially on issues of sanitary infrastructural designs. It was observed that sources of water such as boreholes and wells are not easily accessible to persons with disabilities due to the nature of their designs (see figures 1 and 2). The architectures who developed the borehole pump and water basins designed them with an able bodied person only in mind. More so, it was found that people with disabilities especially those who are paraplegic or in wheel chair, find it difficult to access domestic toilets in towns and Blair toilets in both urban and rural areas due to their exclusive designs, (see figures 3, 4, 5). Whilst some individuals in wheel chairs asserted that urban squat pans are much accommodative of their impairments, they lamented restrictive door ways (see fig 7). Gathered data from observations and interviews highlighted that most toilets and clean water sources in regular schools are exclusive, they do not accommodate children with disabilities (see figure 6) thus causing high dropout rate.

Erratic rains in Zimbabwe have seen most dams falling short of providing adequate water in most cities and towns of the country. This has led most towns and cities to do water rationing. Residence of Bindura (the biggest town in Mashonaland Central Province) for example, access water from the taps for about 3 hours of the early morning and about 3 hours in the evening, starting from around 5p.m. People thus make do with public boreholes which were donated by Humanitarian Organisations in Bindura and other districts of Mashonaland Central. Whilst this is so, people with physical disabilities such as phocomelia (stump hands) as well as those in wheelchairs can't access the borehole facilities. International and local Non Governmental Organisations (NGOs) intervened with various projects to alleviate the water and sanitary crisis which has seen cholera and typhoid outbreaks in some part of Zimbabwe. Such projects include construction of community boreholes and building of Blair toilets in both urban and rural schools. The noble cause was undermined by interviewed subjects because it left out persons with disabilities at all processes of sustainable development.

RESULTS

The following results were obtained from the research;

- People with disabilities find it difficult to access safe water, toilets and information on good health practice.
- People with disabilities are excluded from workshops and campaigns aimed at equipping communities with skills about mitigating against environmental hazards, e.g. cholera, shortage of water, just to mention some.
- People with disabilities are not included in community consultations or in decision-making roles. While some are beneficiaries of some community projects, they are not active participants and their access to basic services which includes safe water is limited.
- Able-bodied persons design infrastructure which is exclusive of persons with disabilities.

Thus whilst inclusive policies have been put in place by the government of Zimbabwe, depicted results show that policy is one thing and implementation another in as far as sanitary provisions for all is concerned in some part of Zimbabwe. While some organisations are providing such a worthwhile service to the people of Zimbabwe, findings suggest that, they are leaving out the most vulnerable groups in society. Deprivation of a few individuals to accessing sanitary facilities is likely to cause indulgence into unhygienic practices such as use of the bush or open places. Unhygienic practices by a few individuals can cause havoc for the whole nation in the form of outbreaks of diseases such as cholera and typhoid.

Universities- Communities and Collaborative Approach

Collaborative research by universities can go a long way in alleviating challenges faced by vulnerable persons and the country as a whole. Combating life threatening diseases is one of the global Millennium Development Goals (MDGs) to be achieved by the year 2015. Thus through various researches on appropriate sanitary provisions, universities can do much to inform policy as well as to help their government to pursue objectives and strategies that will guarantee the delivery of optimal outcomes of MDGs in the shortest time possible and at a reasonable cost. It is time universities in Zimbabwe desisted from 'brown paper lectures' to full time participation on issues of knowledge transfer and sustainable development. Conventional universities and ODL universities should view each other as partners for environment and human resource development, thus share resources. ODL mode has attracted most adults in Zimbabwe, for example. These adults in most cases hold key posts in their organizations or are influential in the communities they live. Conventional universities have the infrastructure in terms of laboratories. Partnership among universities can enable the sharing and utilization of such unique resources in educating their students.

The purpose of education is to ensure that all students gain access to knowledge, skills, and information that will prepare them to contribute to their home communities, workplaces, country and global community. The central purpose becomes more inclusive as universities accommodate students with diverse backgrounds and abilities. Thus as the institutions strive to meet challenges of poor sanitation, the involvement and cooperation of students is vital for the creation of better and more inclusive universities. The need to develop and produce competent and committed graduands that are able to proactively respond to pressures for accountability and outcome measurement of global issues and challenges is vital. Infact, tertiary institution natures a community of scholars who become the conscience of the larger community, which makes universities inherently responsible to society and not as an afterthought or to entertain the thought of social responsibility (CSR). Diverse intelligence across faculties can be utilized by putting in place a provision on the curriculum of fieldwork. These field works can be carried out by organized groups such as clubs and or relevant faculties such as environmental, rural and urban development, science, architecture departments to mention some. In such, students get into real communities to find out challenges faced by communities on issues of sanitation. The advantage of empowering students is that, they come from these very communities and they know what their families and communities at large need. Thus connecting them to the communities during their education means instant application of learnt knowledge. Hence relevance of such knowledge and institution offering the knowledge is recognized by the very communities.

Through research trainings, universities can empower local people and those with disabilities to spearhead development of appropriate and inclusive sanitation facilities such as boreholes and toilets. Ventilated improved Pit latrines are commonly used in Zimbabwe. Where they have been adopted, communities are considered to have increased access to sanitation. This may not reflect reality since the sign of most VIPs makes them inaccessible to persons with disabilities (see figure 3). Most school toilets have no access ramps, making it difficult for pupils with physical disabilities to access them (see figure 5 and 6). Zimbabwe has a policy of enrolling children with disabilities in their home schools. The challenge is children using wheelchairs have problems in accessing and using toilets. Some school toilets have got doors and children with phocomelia and those in wheelchairs have difficulty opening the doors and closing them once inside. Door locks are often too high to reach and limited space inside the toilets restricts movement for those in wheelchairs. Taps are often too high, making washing hands and self-cleaning

problematic. We note that those pupils who crawl find the floor too dirty, especially as they often crawl with bare hands. Most primary schools do not have water nearby thus pupils with disabilities especially that in infancy, find it difficult to carry water to the latrine for washing.

Universities can give practical support to communities they serve by encouraging students in relevant departments to devise sanitary infrastructures that are compatible with their home backgrounds and that are inclusive in nature. Prizes can be awarded to the best inventor, builder, planner or engineer of the semester or year. The advantage of such an approach is that, the universities are likely to plough back resourceful persons in diverse communities and the water borne disease challenges in this case are likely to be overcome. There is need to put in place a 'University Student Sanitation day' where students move around cleaning and educating people on the need for inclusive approaches in sanitary provisions for sustainable development for all. At times one finds that poor sanitation is not the absence of equipment but the presence of inappropriate sanitary technologies.

CONCLUSION

Our research found that people with disabilities are left out in accessing safe and appropriate sanitary facilities in Zimbabwe. Universities can play a pivotal role in educating and empowering persons with disabilities to advocate for their rights. Communities can also be educated on inclusionary practices and innovative ideas. More so, through skills development among students, collaborative research and trial projects, universities can inform policy and fulfill the MDGs of a country on health for all.

Figure 1: Community Borehole in the Urban Area

Figure 2 : Model of protected well in most Zimbabwean Villages

Figure 3: Pit latrines

Figure 4: Model of a Blair Toilet commonly found in Zimbabwean Rural Areas

Figure 5: School Toilet

Figure 6: School Dropout Pupil Due to Difficulties in Accessing School Toilet

Figure 7: A woman in a wheelchair demonstrating her 'everyday nightmare' in accessing the toilet in her home.

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