Impact Assessment of Physical Rehabilitation Services in Tanzania

a Field Survey

by the

The Tanzania Federation of the Disabled Peoples’ Organisations

(SHIVYAWATA)

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<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>CCBRT</td>
<td>Comprehensive Community Based Rehabilitation Tanzania</td>
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<tr>
<td>DPOs</td>
<td>Disabled People Organizations</td>
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<tr>
<td>DDH</td>
<td>District Designated Hospital</td>
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<tr>
<td>ICRC</td>
<td>International Committee of the Red Cross</td>
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<tr>
<td>ICRC/SFD</td>
<td>ICRC Special Fund for the Disabled</td>
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<td>ISPO</td>
<td>International Society for Prosthetics and Orthotics</td>
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<tr>
<td>KCMC</td>
<td>Kilimanjaro Christian Medical Centre</td>
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<tr>
<td>MoHSW</td>
<td>Ministry of Health and Social Welfare</td>
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<tr>
<td>MOI</td>
<td>Muhimbili Orthopaedic Institute</td>
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<tr>
<td>NGO</td>
<td>Non-Governmental Organization</td>
</tr>
<tr>
<td>P&amp;O – PT</td>
<td>Prosthetic &amp; Orthotic – Physical Therapy</td>
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<tr>
<td>PWD</td>
<td>Persons with Disability</td>
</tr>
<tr>
<td>SHIVYAWATA</td>
<td>The Tanzania Federation of the Disabled Peoples' Organizations</td>
</tr>
<tr>
<td>SIDO</td>
<td>Small Industries Development Organization</td>
</tr>
<tr>
<td>SPSS</td>
<td>Statistical Package for Social Scientists</td>
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<tr>
<td>UNCRPD</td>
<td>United Nations Convention on the Rights of Persons with Disabilities</td>
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Executive Summary

In this study, 360 physically disabled participated: 211 male (58.61%) and 149 female (41.39) in 5 regions: Dar-es-Salaam, Kilimanjaro, Mwanza, Dodoma and Mbeya. In addition, qualitative sessions were held with 5 group sessions that consisted each of 58 people and 5 in-depth individual interviews were fulfilled (total 63 qualitative session). The 360 people were interviewed based on questionnaire developed by the International Committee of the Red Cross.

As highlighted in the study, quantitative and qualitative, the most important barrier was the associated cost to physical rehabilitation services: 326 (90.56%) referred to the cost of devices and related services, such as lack of proximity to the centre specifically correlated to housing costs and transport. For example, 224 (62.22%) of the participants stressed the importance of accommodation at the centre. In addition, transport is an important barrier even though 160 (44%) of the participants lived less than one hour from where physical rehabilitation services were available. This highlights that poverty in urban areas remains critical. 38 (10.56%) of the interviewees lived more than 10 hours from physical rehabilitation services, stressing the need for motivation on the part of those involved in seeking services. While most people with disabilities were aware of the existence of government subsidies mentioned in official documents, they regarded them as of insignificance or of no benefit.

It is furthermore evident from the study that 228 (63.33%) of people with physical disabilities interviewed felt dissatisfied with the rehabilitation services offered. 258 (71.67%) of the participants hardly wear their devices (broken or ill-fitting). The lack of quality is a serious issue. However, those that were able to use the device for more than 8 hours per day witnessed the extreme positive impact. In addition, this study clearly depicts the dilemma between quality and affordability. Quality must be addressed effectively in order to significantly resolve the plight of people with disabilities particularly by the Government as it signed and ratified the United Nations Convention on the Rights of Persons with Disabilities. The MoHSW should ensure that existing centres providing physical rehabilitation services become productive and consistent in their offering and in the provision of assistive devices. Considering that without exception all centres lack raw materials, a pragmatic implementation a Tourist Tax to supply basic manufacturing materials and machines. In addition, it was advised that the Government oblige private insurance companies to cover the provision of assistive devices.
Based on the qualitative data (57 people), group discussion sessions, were in opinion that, there were no fixed treatment procedures for providing assistive devices and physical rehabilitation services because of the range of different conditions requiring specific services. Variables include the type of disability, level of impairment, number of hospital visits, and the type of the assistive device suitable for the condition. The services were characterised by extremely long procedures to obtain the assistive devices. It is advisable to rely on neutral institution, for example a University or School, to recommend and guide the implementation of fixed treatment procedures in each centre and it is also strongly recommended that multi disciplinary teams are operational in each physical rehabilitation centre. Appropriateness and affordability of devices is key to the context.

Finally, a CBR framework seems to be an appropriate framework for the Government to adhere to. However, within a physical rehabilitation framework, any CBR can only function if a professional multi disciplinary physical rehabilitation team and the existence of physical rehabilitation centre of excellences support it. A setup of a Physical Rehabilitation department within the MoHSW makes sense to promote all issues within the physical rehabilitation sector.
RECOMMENDATIONS

1. Appropriateness of devices is key to the context. This can only be ensured by considering a range of factors:
   - Implementing an in depth study of existing rehabilitation centres is crucial, because often it is the raw materials that are lacking. International standards must be established, adhered to, and maintained;
   - establishing a central purchase unit that will provide all centres proximity to raw materials supplies;
   - ensuring quality through training multi disciplinary staff.

2. Physical Rehabilitation Service providers need to include a ‘safety net’ (dormitory /food/transport) as part of their services package, specifically for rural areas and those within the periphery of major cities.

3. A study should be implemented on the staffing and modus operandi of the main centres evaluated.

4. In order to achieve implementation and adopt a sound system within the country, a School or University ought to be approached by the MoHSW as a neutral body and consultancy centre to advice the Government on standard treatment procedures.
   - to organise annual technical forum of all physical rehabilitation centres as professionals require training so that all meet high standards. There must be ongoing professional development in line with advances in technology and techniques.

5. The MoHSW to organise a two-day think tank session on identifying tangible ways to implement the UN CRPD within the physical rehabilitation sector.

6. Implement the Tourist Tax:
   - to fast track sponsoring physical rehabilitation services and this only in centres that provide multi disciplinary team approach.
   - to support raw materials, including wheelchairs through a central purchase unit.

7. Consistency of service delivery levels must be ensured across the board: consideration to WHO CBR Matrix and 2010 Guidelines Awareness raising/education about the benefits of using devices, on the condition that is guided by physical rehabilitation specialists.
   - to approach private insurance companies to commit to prescribed orthopaedic devices and or study the possibility of a public funded insurance plan.
   - the government should increase the level of exemptions to imported raw materials directly related to physical rehabilitation services.
   - to setup of a Rehabilitation Department within the MoHSW department is strongly advised.
1. INTRODUCTION

1.1 Introduction:

In June 2014 the International Committee of the Red Cross (ICRC), through the support of the Special Fund for the Disabled (SFD), approached SHIVYAWATA to conduct an assessment, the primary aims of which were to:

(i) Identify barriers faced by people with physical disabilities in accessing assistive devices and physical rehabilitation services,

(ii) Assess the positive and negative impacts derived from the use of assistive device for people with physical disabilities,

(iii) Provide the ICRC/SFD with an analysis of the current services provided and recommendations for strengthening them.

The rationale for this exploratory survey hinged on the fact that rehabilitation services are not priority measures in the health sector in Tanzania. Arguably, mere provision of a prosthetic device is not adequate proof of impact. It is therefore mandatory for organizations such as ICRC/SFD, their donors and partners to investigate the matter through surveys in order to get a broader picture of such interventions. That is to say, actually documenting evidence regarding the impact of services and benchmarking the quality of services. This report therefore serves to explain the availability of opportunities to access assistive devices by people with physical disabilities, establish the gaps in accessing them, and how access to appropriate technical support impacts the beneficiaries' lives.

This report is organized according to a pre-agreed report framework. That is: Executive summary; Recommendations, Introduction, Background to the Assessment, Limitations, Discussions, Conclusion, References and Annexes.

1.1.1 SHIVYAWATA

The Tanzania Federation of the Disabled Peoples’ Organizations, common referred to as SHIVYAWATA is a non-governmental, non-profit making organization which was established in 1992 and brings together the ten national Disabled Peoples’ Organisations (DPOs) in Tanzania namely, Tanzania Albino’s society (TAS), Tanzania Association of the Deaf (CHAVITA), Tanzania Association of the physical handicapped (CHAWATA), Tanzania Association of Mentally Handicapped (TAMH), Tanzania League of the Blind (TLB), the Tanzania Society for the Deaf- Blind (TASODEB), Kilimanjaro Association of Spinal cord injuries (KASI), Tanzania Users and Survivors psychiatry (TUSPO), the Psoriasis Association of Tanzania (PSORATA) and the Association of Spinal bifida and Hydrocephalus Tanzania (ASBAHT), working in a coordinated and collaborative manner. SHIVYAWATA envisions a society which advocates for and empowers persons with disabilities through the recognition of human rights creation of barrier-free environment and inclusive society for all people of Tanzania.
1.2 Demographics Tanzania

The United Republic of Tanzania is the largest country in East Africa, covering 940,000 square kilometres, 60,000 of which are inland water. Tanzania lies south of the equator and shares borders with eight countries: Kenya and Uganda to the north; Rwanda, Burundi, the Democratic Republic of Congo, and Zambia to the west; and Malawi and Mozambique to the south.

The population distribution in Tanzania is quite imbalanced. Most of its population lives on the northern border or the eastern coast, with much of the remainder of the country being sparsely populated. Dar es Salaam is the de facto capital and largest city. Dodoma, located in the centre of Tanzania, is the de jure capital, although action to move government buildings to Dodoma has stalled (Wikipedia, 2015).

<table>
<thead>
<tr>
<th>Age Structure</th>
<th>Male</th>
<th>Female</th>
</tr>
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<tbody>
<tr>
<td>0-14 years</td>
<td>11,173,655</td>
<td>10,962,186</td>
</tr>
<tr>
<td>15-24 years</td>
<td>4,838,216</td>
<td>4,841,338</td>
</tr>
<tr>
<td>25-54 years</td>
<td>7,340,129</td>
<td>7,289,483</td>
</tr>
<tr>
<td>55-64 years</td>
<td>745,214</td>
<td>985,524</td>
</tr>
<tr>
<td>65 years and over</td>
<td>629,483</td>
<td>833,910</td>
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</table>

Table 1 Demographics of the Tanzania Population

Although the United Republic of Tanzania (URT) constitutes Tanzania Mainland and Zanzibar, the assessment concentrated on the mainland comprising 25 administrative regions with a population of over 43.5 million.

For this field survey purpose, the surveyed area included people with a variety of disabilities but the assessment targeted only those with mobility and self care impairments totalling over 830,700 (or 2% of the total population). These were likely to need and, indeed be deserving of, access to rehabilitation services: particularly assistive devices and related supportive technologies.

1.2.1 Disability in Tanzania

Literature and especially the WHO World Report on Disability 2011 estimated that around 15% of the world’s population are people with disabilities. However, the same report underscores that various researches on disability prevalence and incidences give different results depending on the definitions used and socio-economic considerations. The Basic Demographic and Socio-Economic Statistical Profile of the

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1 URT (2014), Basic Demographic and Socio-Economic Profile
Tanzania Mainland (2014) reveals that disability prevalence in Tanzania stands at around 2.5 million with 44% being male and 56% female. This means that 5.8% of the total population in mainland Tanzania have functional limitations. This is different from the findings of the Tanzania 2008 Disability Survey, showing that 7.8% of the total Tanzanian population (adults and children) face such limitations. Major categories of disabilities are: albinism 16,000 (or 1%); visual impairments 820,000 (or 32%); hearing impairments 410,000 (or 16%); mobility challenges 513,000 (or 20%); memory issues 390,000 (or 15%); Self care challenges 317,000 (or 12%); and other disabilities 97,500 (or 4%). It is a confirmed fact that disabilities get worse as age advances.

This study confirms that in Tanzania most physically disabled people live in urban areas or in the periphery of Dar es Salaam cities. When the family economy is based on agriculture or other rural occupations and when the traditional extended family safety net exists, it may be possible for most people with disabilities to be given reasonable social support. As more people with disabilities move from rural areas to urban centres, the safety net weakens i.e. the institution of family disintegrates, competition for employment is greater, and economic productivity is a challenge exacerbated by the absence of social protection interventions (absence of the ‘family safety nets’). Many people in Tanzania with disabilities under such circumstances suffer from enforced inactivity and become dependent.

**Recommendations:**

- Physical Rehabilitation Service providers need to include a ‘safety net’ (dormitory /food/transport) as part of their services package, specifically for rural areas and those within the periphery of major cities.

### 1.3 Human Rights and Disability

Following the field survey, it is evident that there is a negative perception and stereotyping about disability in Tanzania. Tanzania ratified the United Nations Convention on the Rights of Persons with Disabilities together with the Optional Protocol in November 2009. However, it appears that issues regarding people with disabilities remain inadequately addressed.

During this survey, and through discussions with stakeholders, it has been identified that: a: the importance of the adoption of the CRPD is not always understood; b: a human rights based approach to physical disability challenges is required. A human rights based approach to lifting the barriers to access to services for people with physical disabilities is essential because it transcends understanding physical disability as belonging to a medical or charitable spheres (Lord et al, 2014). By signing the Convention of the Rights of Persons with Disabilities (CRPD), Tanzania is making a commitment to follow, at least, the basic principles.

Tanzania, being a State Party to the CRPD, is duty bound to ensure that it is fully observed. It has so far domesticated the CRPD through the Persons with Disabilities Act No 9 (2010). Accessibility is covered by the Persons with Disabilities Act (2010) under sections: 15, 26(a), (4)(a), (b)(c), (6), (7), 27, 30, 35, 38, 39,
Part III to XI of the pertinent general regulations underscores the whole question of accessibility. While the provision of assistive devices helps people with physical disabilities pursue opportunities outside home, work, participate in the community, as is evidenced in this study by point 1.4, this study reinforces that physical rehabilitation centres or those centres that provide assistive device are crucial in ensuring that person who are physically disabled are able to access all of their human rights.

Vital to the future is the actual education and implementation of stated aims and objectives with regard to people with disabilities. That is to say, the Government and other stakeholders must actualise their policies in practice, moving beyond theoretical support of people with disabilities to tangible, real active promotion of the rights of those same individuals. Following a group discussion, one of the participants pointed out that signing and ratifying the UN CRPD can only be a first step. Another group pointed out that centres who provide physical rehabilitation services ought to provide ‘safety nets’. It was felt by the group that often people from rural areas travel to urban areas to receive physical rehabilitation care. This cut of the basic safety net provide by the family such as housing and food.

**Recommendation:**

- The MoH, with identified stakeholders, should organize a two-day think tank session on identifying tangible ways to implement the UN CRPD within the physical rehabilitation sector.
- Physical rehabilitation centres need to provide services considering the whole of the physically disabled person.

1.4 Impact of physical rehabilitation services

Impact of assistive devices and physical rehabilitation services were twofold namely i.e. positive and negative impacts. In the first instance, PWDs in all five regions cited positive impact realized from the acquisition and use of assistive gear contrasted with previous situations before accessing the same. In the former case, PWDs used to stay at home idly; seek assistances from other people to give them a hand to move around. Finally, field findings indicated that 80% of interviewees mentioned that received a quality assistive device as one of the most powerful motivating factor.
This study interviewed 69 school-aged children of whom 35 (50.7%) rated their devices as a very important facilitator that enabled them attend schools while 16 (23.1%) regarded devices as quite important. The remaining 5 (7.2%) rated devices as less important, 3 (4.3%) considered devices as not very important and 10 (14.4%) regarded devices not important at all.

**Independent living:** Access to physical rehabilitation services increased the level of functionality and the degree of independence that elevated PWDs’ esteem. This helped diminish the notion that PWD are a burden to society. Some respondents were appreciative that devices permitted them to run their life independently and even enabled them to also support relatives and friends. Some could even participate in sports, especially tri-cycle races where in turn they exercised and won awards that were milestones in their lives. Narrative evidence from group discussions and field testified that orthopaedic appliances did a good deal to improve social status. The fact that they could move freely from one place to another gave them a sense of pride.
Recommendations:

- The government through the ministry of Health and Social Welfare should continue to support the current physical rehabilitation centres that provide assistive devices to ensure that the physically disabled are able to access their deservedly right to mobility according to the UNCRPD.
- Implementing an in-depth study of existing rehabilitation centres is crucial, because often it is the raw materials that are lacking.
- Establish a central purchase unit that will provide all centres proximity to raw supplies.
2 BACKGROUND OF THE ASSESSMENT

2.1 Geographical coverage: The research team from SHIVYAWATA started collection of field data in June 2014, covering referral hospitals and rehabilitation centres in five regions namely: Comprehensive Community-Based Rehabilitation in Tanzania (CCBRT) and Muhimbili Orthopedic Institute (MOI) both of Dar es Salaam; Kilimanjaro Christian Medical Center (KCMC –Kilimanjaro); Bugando Medical Centre, Mwanza; Dodoma Referral Hospital, (Dodoma); and Mbeya Referral Hospital, (Mbeya) regions respectively.

![Figure 3 Indicates the interview locations](image)

![Figure 4 Number of respondents by regions.](image)
2.2  **Research methodology:** Respondents’ contact information was obtained primarily from orthopaedic units of particular regional and/or referral hospitals/private workshops and from CHAWATA offices present in the study area. Respondents were approached from different localities (Field, Home and Centres) as the chart above shows. ‘Field’, in this report, means meeting a respondent by scouting around in the respective study area apart from homes and centres. Collection of primary data utilized both a structured questionnaire and open ended interview guide. The structured questionnaire was prepared by ICRC/SFD and specifically elicited both qualitative and quantitative information from respondents.

The interview guide was employed to gather data during the interactive sessions -Focus Group Discussions (FGDs) where the research team received in-depth information about assistive devices and rehabilitation services from people with disabilities. The research team conducted one interactive session in each studied region, each comprising at least 12 participants.

2.3  **Characteristics of respondents:** The study interviewed the total number of 360 respondents divided into the age groups as indicated by the below displayed figure.

![Figure 5: Distribution of respondents by age groups in this table, age groups were classified as follows; Children aged from 0 – 17 years old, Youths from 18 – 34 years old, Adults between 35 – 50 years and elderly from 50 years old and above.](image)

2.4  **Gender considerations:** Gender balance was considered in selection of respondents to ensure a fair representation of both males and females. Of the 360 respondents contacted by the study, 211 (58.6%) were male and 149 (41.4%) female.
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<tr>
<td>Female</td>
<td>149</td>
</tr>
<tr>
<td>Grand Total</td>
<td>360</td>
</tr>
</tbody>
</table>

2.5 **Different forms of impairments:** Respondents had diverse categories of physical impairments. Selection of respondents purposely considered different users of devices so as to capture wider views of the challenges encountered by users of different types of devices. 40% of respondents were prosthetic users, and 20% orthotic users. The remaining 40% of respondents were using other types of assistive devices such as crutches, walking sticks, tricycles, wheelchairs, splints, and so forth.

2.6 **Data analysis:** Data was processed and analysed using SPSS programme. Qualitative analysis was used for analysing open-ended questions from both the questionnaire and interview guide.

3 **LIMITATIONS**

3.1 **Failure to meet the target number of respondents:** The study reached 360 respondents (93.7%) instead of the planned total of 384 due to difficulties in locating enough respondents in Mwanza, Dodoma and Mbeya regions. Interactive sessions planned to involve 60 participants (12 in each region). The survey heard the opinions of 57 respondents (95%) of intended audience.

3.2 **Poor Cooperation:** During the study, some hospitals were hesitant in disclosing information regarding their operations.

3.3 **Failure to cover ‘hard to reach places’**: Geographical coverage of the study targeted regions and informants in regions and districts already known to have facilities catering for people with
physical disabilities. The study missed experiences from people with disabilities living in areas that were hard to reach and had no rehabilitation services readily available to them.

4 DISCUSSIONS

4.1 Barriers for Physically Disabled People Accessing Physical Rehabilitation Services

While the quantitative data of the study hints that the obvious barriers denying accessibility are: underproduction of all rehabilitation centres, costs for orthopaedic appliances and services and geographical remoteness; the qualitative interviews suggested the lack of working protocols. This chapter will discuss findings and come to recommendations.

Following discussions indicate that some rehabilitation centres have been found to offer inadequate rehabilitation services. This has forced many people with disabilities to seek alternatives that mostly involve travelling to the neighboring regions for better services, thus increasing the burden in terms of high cost of transport, accommodation. This also means that many centres received an influx of patients from areas outside their jurisdictions, imposing a greater burden on rehabilitation workers and creating a delay in service provision. Based on this reality whereas MOI, CCBRT and KCMC functional as regional referral centers, they should implement WHO staffing recommendations.

The field survey evidenced that centres required the people with disabilities to pay for devices and services. The question is whether the associated costs are affordable to individuals in need of these services. For example, it was identified that the cost of orthopedic devices in Tanzania were quite high and vary between Tsh.800,000 – Tsh 1,000,000. Based on the discussions, most families seemed unable to pay for the assistive devices. For example, some people interviewed revealed that they earn between 80’000 – 120’000 per month. Therefore, many interviewees were unhappy with the high prices and idea of paying for assistive devices in all facilities. Most interviewees believe that subsidization must be available to cover expenses. As suggested elsewhere in the paper, the Tourist Tax Visa might solve this problem. Many perceived these facilities were offering more of business-oriented services. It was felt that the “social enterprise” as promoted by CCBRT might be redefined or be clarified.

The second major contribution of dissatisfaction was the time spent accessing the services. For instance, the field survey learned that 70% (266) participants expressed disappointment with the long procedures in all rehabilitation centers, which forced them to queue for hours. Some reported that centres require persons with disabilities to pay a high non-refundable fee for doctors’ consultations but, in turn, deliver poor services.
It is important to note that the issue of cost varied significantly across regions: there were no fixed prices for the assistive devices. For instance, the cost of the prosthetic device ranged from Tsh.800,000 - 2,000,000, and that of the wheelchair and tricycle ranged between Tsh. 300,000-400,000. Interviewees expressed dissatisfaction in the way their preferred centres established the prices of the assistive devices since they were not fixed, and some applied to have the cost reduced.

It was evident in this study that problems associated with one centre were not related to those of another centre and thus differed significantly. For instance, most centres had costing related challenges and considerable lack of raw materials. On the other hand, some centres provided sponsored services but failed significantly on capacity building of staff challenging the quality of the device. There was clear evidence that the core of many inconveniences was the lack of basic raw materials. Again here the need for a central purchase emerged which is also according to WHO standards.

Recommendations:

- Costs of devices will need to include all related financial costs that relates to the services.
- Cost calculation should be homogenous.
- Regional Physical Rehabilitation Centres such as CCBRT and KCMC need to bridge the gap to provide sponsored physical rehabilitation services.
- Time protocols and waiting lists needs to be created in each centre.

An extremely high proportion of the people with physical disabilities who have accessed rehabilitation services have praised the quality of services offered by CCBRT centres but showed dissatisfaction with the price for assistive devices. The quality of assistive devices provided by some centres was reported as higher. For example, in CHAWATA those that required a tri-cycle were recommended a Kenyan brand considered easier to ride and with minimal associated side effects by some centres. The Kenyan made tricycles had long durability period without major repairs. These tri-cycles have additional motor that enables them to ride and thus users engaged less energy to ride them. The wooden and metallic crutches that were provided by these centres were more durable. Nevertheless, most of the metal calipers have been considered less comfortable when compared to the foldable calipers. The latter cannot sit on a chair. While in 1996 the term appropriate technology was defined by the ISPO as “a system providing proper fit and alignment based on sound biomechanical principles which suits the needs of the individual and can be sustained by the country at the most economical and affordable price”.

15
Recommendations:

- Introduce the provision of wheelchairs that are prescribed according to the needs. Funds can be linked to the Tourist Tax (see later).

In Mbeya region, survey participants were unhappy with the quality of assistive devices provided. This has forced some people to seek alternative sources such as the improvisation of hoe shaft into walking support.

It was felt by the interviewees that quality and cost was controversial. For instance, in some regions, the people argued that the cost of the assistive devices did not favour the poor yet the quality of these orthopaedic appliances was high. Indeed, the quality of assistive devices provided was strongly attached to price: the more money people pay, either in terms of consultation fees or for the device itself, the higher quality the device. Regions differed on the preferred type of devices, the place of manufacture, and price.

Imported assistive devices from Europe were considered to be of higher quality compared to those obtained from Asia. Quality was also partly attached to the presence or absence of warranty for the devices. People perceive that products with poor quality usually do not have a warranty since the manufacturer or seller is not sure of the quality.

Some of the surveyed individuals refused to access rehabilitation centre and were not ready to do so because of the cost. Even when services are free-of-charge, many people with disabilities were not attracted to them because the services involved long procedures. For instance, those seeking services were supposed to wait for unacceptably long periods of time in order to obtain medical exemptions. Some of the requirements that made the process long included the acquisition of a formal letter from the local authority, approval from the social welfare officer, and accomplishment of some hospital-based procedures. Since these processes are intensive and require professional judgment, they have been linked to incidences of corruption involving bribes and bias in order to get through quickly or to getting approval without proper assessments.

Some regions have been found to offer ever diminishing quality services. For instance, rehabilitation centres usually have efficient services immediately after establishment, including having enough raw materials, but as time progresses the procedure for acquiring devices becomes more complicated and waiting time to receive the assistive devices increases to several weeks or months. It was felt that a shortage of trained staff was the underlying factor. Some hospitals were found to have better rehabilitation services than others. For example, the KCMC Hospital in Kilimanjaro region facilitated the acquisition of assistive devices within two weeks and did not experience a shortage of raw materials.
Many regions that were visited failed to meet the needs of people with disabilities; a few attained the objectives of the WHO CBR recommendations. These few rehabilitation services were characterized by high levels of satisfaction, centre-community communication, reliability and efficiency standards. They can be used as models for the entire nation. For instance, most patients expressed happiness with the way the centres handled their needs. They were supplied with sufficient information on the procedures to be followed in order to access rehabilitation services and acquire the assistive devices. Clear communication between the centres and people with disability was critical to satisfaction despite existing challenges such as long procedures and waiting to acquire the assistive devices. The impact of communication was that the people with disabilities expressed satisfaction with the entire process despite the waiting period to acquire assistive device being three weeks to one month. However, the centres with the best services were still associated with high costs of acquiring high quality assistive devices and this was the greatest hindrance.

Many people with disabilities expressed dissatisfaction with the services offered in the rehabilitation hospitals that included a workshop. Cost was the greatest cause of dissatisfaction. Most were aware of the existence of government subsidies mentioned in official documents but suggested that they were of minimal or no benefit. This is likely because people do not understand the processes of accessing such subsidies. Because of this, many people with disabilities felt that their government had neglected them and was taking the issue of disability very lightly. The Government strategies are considered by many as ineffective. For instance, the government and local authorities actively facilitated the commemoration of the International Disability Day but does not subsidize assistive devices. The suggestion of a Tourist Tax should be embraced and implemented in collaboration with the MoHSW. 0.5% from all tourist visas would ensure the supply chain to all centres. (see further in this document, point 4.3)

Finally, the prosthetics and orthotics service is an integral part of the health and rehabilitation services in a country. It is important that these services follow the health care referral system of the country. As exampled by CCBRT, in order to have an optimum access to prosthetics and orthotics services throughout a country, it needs to have a strong linkage with the primary health care services and community-based rehabilitation programmes.

**Recommendations:**

- Consider CBR as a social model of national policy, linked to primary health care.
- Consider use primary healthcare as a platform for referral of physically disabled people to regional physical rehabilitation centres.
The most impressive impact of the CCBRT programme as identified in this study was the comparison of the situation before and after using assistive devices. Most people with disabilities that have acquired the assistive devices expressed the great significance the devices played in terms of improvements in their daily life. According to them, the assistive devices made them feel more important, enabling them to be mobile and to get involved in economic activities. In this regard, the assistive devices made them more functional and thus increased their level of independence and self-esteem.

Participants did, however, admit to facing various challenges after receiving assistive devices. For instance, participants using tri-cycle complained of back and chest pains resulting from prolonged riding, especially along routes that crossed steep landscapes and features such as hills. The tri-cycle riders also reported prolonged exposure to harsh weather such as hot midday sun and other riding associated risks such as reckless motor driving. The infrastructure also makes it hard for people with disabilities to access certain places. For instance, the sidewalks did not have ramped entrances and others had broken parts.

Crutch users complained of shoulder pain and arm-pit bruises, especially with wooden devices. Since the assistive devices required weight bearing, most users had hardened hands and the energy required was associated with sweating and fatigue. Failure for the users of assistive device to replace worn out parts was been associated with increased risk of accidents. For example, when the threads of tricycle or wheelchair tires wore out and are not immediately replaced, the users are at higher risk of skidding or slipping when moving. Additionally, when the bottom rubber of the crutches wore out and were not replaced then the user stands an increased risk of slipping. Such risks were also associated with loss of the assistive device such as breakages and/ or increased physical disability due to fractures and traumas. Finally, many participants pointed out the expense and time spent repairing or adjusting ill-fitting devices.

Despite the fact that assistive devices were very helpful, some lacked flexibility. For instance, wheelchairs are very useful for mobility within short distances but could not offer the same benefits for longer distances due to fatigue. It is because of these challenges that some centres were involved in the improvisation of better devices with reduced side effects or challenges and to solve the affordability issue. For instance, local workshops supply tri-cycles that are adjustable, durable, and tailor-made. These were manufactured according to the weight and size of the intended user. The tricycles have movable seats to suit the user's stature. Another important advantage is that, some local tricycles have thick tires that do not sink on sand, unlike some of the imported models. Nevertheless, there were quality issues since low quality steel was used to make the tricycles affordable. For example, some of the steel used in the assembly of this device could simply break when folded.
<table>
<thead>
<tr>
<th></th>
<th>Not satisfied at all</th>
<th>Not very satisfied</th>
<th>Less satisfied</th>
<th>Quite satisfied</th>
<th>Very satisfied</th>
<th>Total participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bugando</td>
<td>2%</td>
<td>3%</td>
<td>2%</td>
<td>7%</td>
<td>1%</td>
<td>28</td>
</tr>
<tr>
<td>CCBRT</td>
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<td>1%</td>
<td>1%</td>
<td>5%</td>
<td>9%</td>
<td>32</td>
</tr>
<tr>
<td>Dodoma</td>
<td>2%</td>
<td>2%</td>
<td>1%</td>
<td>3%</td>
<td>3%</td>
<td>18</td>
</tr>
<tr>
<td>KCMC</td>
<td>1%</td>
<td>3%</td>
<td>5%</td>
<td>12%</td>
<td>20%</td>
<td>77</td>
</tr>
<tr>
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<td>4%</td>
<td>2%</td>
<td>2%</td>
<td>2%</td>
<td>5%</td>
<td>27</td>
</tr>
<tr>
<td>MOI</td>
<td>1%</td>
<td>1%</td>
<td>2%</td>
<td>4%</td>
<td>2%</td>
<td>17</td>
</tr>
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<td></td>
<td>8%</td>
<td>10%</td>
<td>12%</td>
<td>31%</td>
<td>39%</td>
<td>199</td>
</tr>
</tbody>
</table>

Table 2 indicates that more than 50% were satisfied with the pre-fitting activities, thus responding to the question 9 of pre-fitting activities.

It is fair to conclude that quality is an issue because lack of raw materials, trained staff, physical therapy and the fact that often beneficiaries cannot not deal with the long waiting time and are often ‘forced’ to return with an incomplete devices.

**Recommendations:**

- A parallel study by MoHSW should be implemented on the staffing and modus operandi of the main centres.

4.3 **Dedicated Taxes for Raw Materials and services**

This research reconfirms that people with disabilities have poorer health outcomes, lower educational standards, less economic participation and higher rates of poverty than people without disabilities. To a large extent this is due to the inaccessibility of services for people with disabilities, which results in their exclusion from healthcare services, education, employment, transportation and access to information and technology. These difficulties are exacerbated in Tanzania, as poverty and lack of government prioritization on disability issues often denies access for physically disabled people, making them even more vulnerable. In addition, most of the disabled population living in rural areas in Tanzania are either unaware of the rehabilitation services available or do not have access to rehabilitation services.

As part of this study, the ‘health-social physical rehabilitation care’ was discussed in the multi stakeholder group discussion; it was understood that physical rehabilitation support is more than short-term basis. Health and social care for physical impairment needs to be considered on the same footing. However, the MoHSW did point out on the lack of health insurance commitment to physically impaired people. Indeed, insurance plans, as pointed out by the MoHSW, hold the promise that funding for physically disabled people is available. In Tanzanian, the government ought to regulate the private insurance industry allowing universal access to physical rehabilitation services according to government prescription books. For example, to discourage excessive expenses such prescription book might be published by TATCOT.
Discussions between the Ministry of Health and the ICRC/SFD confirmed willingness to collaborate in order to improve the provision of vital physical rehabilitation services to people with physical disabilities. The initial suggestion is that 0.5% of tourist visa fees received by immigration to be channeled towards such provision.

4.3.1 Collaborative Public Procurement.
As the field study clearly pointed out that the lack of raw material seriously hampers access to services. Policy development and implementation are fundamental for the MoHSW in their endeavors to create and perhaps a central purchasing system. Basically, innovation in a central purchase unit involves facilitating access to raw materials, retain control of central monitoring and coordination and avoid yearly expensive bulk purchase to improve the performance and functionality of physical rehabilitation centres services and to solve important socio-economic challenges. In addition, it has been argued within literature that harmonization of the central purchase will reduce the price, securing access to raw materials and would assist with this by allowing greater flexibility in deployment of stock and the possibility of building in a small strategic reserve. It is therefore recommended that the MoHSW study the setup of central purchase unit.

**Recommendations:**

- Implement the Tourist Tax:
  - to fast track sponsoring physical rehabilitation services and this only in centres that provide multi disciplinary team approach.
  - to support raw materials, including wheelchairs through a central purchase unit.
- Approach private insurance companies to commit to prescribed orthopaedic devices.
- Study the possibility of a public funded insurance plan.
- The government should increase the level of exemptions to import raw materials directly related to physical rehabilitation services.
- MoHSW to study the setup of central purchase unit

4.4 The role of a Neutral Body
The interactive / qualitative session in Mbeya identified that Mbeya Regional Hospital was, initially, the only centre that provided assistive devices in the Southern region. However, the programmes that followed established other regional centre that is: the Katumba Primary School rehabilitation centre. The interactive session in Mwanza region involved respondents who accessed rehabilitation services at Bugando Medical
Center, Kagondo Mission Hospital, Sengerema District Designated Hospital, or CHAWATA Tricycle and wheelchair workshop. The interactive report of Kilimanjaro region involved device users who acquired appliances or services from the Kilimanjaro Christian Medical Center (KCMC) Hospital. Interactive session in Dodoma targeted device users who attended Dodoma General Hospital. Lastly, the interactive session in Dar Es Salaam region was conducted at Ilala Boma, Karume with key focus to beneficiaries from Salvation army center, MOI and CCBRT hospitals.

However, the main theme identified was; there were no fixed protocols for providing the assistive devices and physical rehabilitation services because different conditions requires specific services, depending on the type of disability, level of impairment, number of hospital visits, and the type of the assistive device that was suitable for the condition. The services were characterized by extremely long procedures of obtaining the assistive devices, which forced many to seek alternative sources at local blacksmith or equivalent. Some centres faced a lack, or delayed supply, of raw materials. This caused the untimely delivery of devices and a complication of the entire process despite having adequate number of staff in a particular facility.

In order to achieve implementation and adopt a sound system within Tanzania, a number of internal and external collaborators have to be involved. These will inject different expertise and support in education/training, establishing sound rehabilitation service delivery systems from national to community level, research, and laying down long-term strategies for sustainability. Maybe TATCOT might be considered as a neutral body and should play a role on a national level to advise the main stakeholders.

4.5 The CBR Matrix as possible entry point for change
Sometimes, an entry point for change might not always be evident. It is therefore advisable for all rehabilitation centres to abide by the WHO CBR Matrix and later WHO 2010 guidelines. This might enable facilities to achieve consistency and uniformity of physical rehabilitation services. The CBR consists of the five pillars i.e. education, empowerment, health, livelihood, and social integration as a channel of intervention. All programmes under the CBR programme have a characteristic bottom-up approach and are compelled to adhere to the Principles of the UN Convention on the Rights of Persons with Disability (Velema et al. 2008). For instance, the management of the CBR programme occurs within four steps that include Situation analysis (Step 1), Planning and design (Step 2), Implementation and monitoring (Step 3) and Evaluation (Step 4). The first step, which is the situation analysis, involves the examination of the context through which planners utilise to establish the CBR programme (World Health Organization 2010). The information from the situation analysis is usually utilised in planning and designing, which is the second step, and thus guiding decisions on how the programme should be structured and operated (Law & MacDermid 2008). The third step, which is the implementation and monitoring, involves observing the functionality of the programme. The fourth step, which is the evaluation, involves the analysis of progression that includes functionality trends and impact of the programme. In this regard, the MoHSW can achieve a consistent uniform approach. As lack of quality componentry and lack of trained staff erodes the
overall quality of physical rehabilitation services, the CBR structure can provide a framework of a professional P&O / PT Group in Tanzanian that may advice those who implement CBR and the Ministry of Health. A setup of a Rehabilitation Department within the MoHSW department is strongly advised.

**Recommendations:**

- Setup of a Rehabilitation Department within the MoHSW department is strongly advised.
- Recognize and support the setup of a professional P&O – PT association.
CONCLUSIONS

It is evident that most people with physical disabilities are poor and cannot afford assistive devices. Appropriateness and affordability of devices remain the main barriers to physical rehabilitation services. As clearly depicted from this study, the dilemma between the quality and affordability needs to be addressed effectively in order to solve the plight of people with physical disabilities. This study confirms that costs to the user result in significant barriers to care and are inequitable. That is to say, there exists a vicious circle whereby those most in need of services and devices are poor and are unable to access what is required to elevate their existence. Moreover, once their lives have been improved through service delivery and the endowment with appropriate devices, such individuals are able to make a greater contribution to society and enjoy a more integrated, equal status.

As a possible solution, this paper discusses the idea of a Tourist Tax and regulated government insurances as a possible way financing a health-social based physical rehabilitation care. Additionally, it is suggested that, the Government should increase the level of exemptions to imported raw materials thus improving local workshops and physical rehabilitation centres and their manufacture of assistive devices. It is evident from the discussion that physically disabled people who lack access to care cannot obtain services, but users who are dissatisfied with the given rehabilitation services may simply refuse them. Accessibility and quality of services are intrinsically linked and need to be tackled together. What is essential to achieve is a balance between affordability, quality and local appropriateness. To reach this balance, local partners and stakeholders who understand the context must be engaged. This requires a bottom-up solution rather than an 'international/ development' perspective. Context is absolutely key to successful outcomes.

While quality is a key determinant of physical rehabilitation services and positive outcomes are not easy to measure, it is clear that it is a main concern. Methods of measuring quality include a systematic follow up and also simply asking physically impaired people to report on their experiences. The ICRC/SFD 'beneficiary questionnaire' is an appropriate tool to do so. The participation of DPO's to follow up on quality and accessibility issues is strongly encouraged.

Based on the qualitative data, appropriateness should be considered as a balance between cost, quality and suitability for given cases. It was identified that there were no fixed treatment procedures for providing assistive devices and physical rehabilitation services because of the range of different conditions requiring specific services depending on the type of disability. The appropriateness of a leading institution to tackle theses issues was discussed. It is felt that TATCOT should, indeed, take a lead role in this and should assume responsibility for coordinating ongoing research and quality improvement projects.
Considering the fact that Government programmes for people with physically disabilities have remained insignificant, it is advisable for them to participate in constitutional processes since that will bring them into focus within government plans and programmes. Visible and tangible ways to implement the UNCRPD needs the support of major stakeholders governed by the MoHSW.

While CBR programmes might still face serious challenges, undoubtedly community based rehabilitation offers a structure and an anchor to start improving access to physical rehabilitation. This merits study by the Tanzanian Government, on the condition that is guided by physical rehabilitation specialists.

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6.1 Case Study Dar es Salaam

Penina is a single mother of two children living on the outskirts of Dar es Salaam. 36 year old and wears a prosthetic device on her left leg and, although she is a smiling, it is clear that her disability makes life more challenging.

It was an accident with a commuter bus that resulted in a single leg amputation from the knee down. Although she was rushed into hospital following the accident, a doctors’ strike meant that she was not attended to for several days. She explains, with tears in her eyes, that the injured leg had started to rot. By the time she was seen by doctors, there was no alternative but to be amputated. Quick treatment would have saved her leg, but the opposite was the case.

The Penina’s world had changed when regained consciousness after surgery. “I was shocked to see my leg missing. I was struck with fear and unbearable pain, by realising that I had lost my leg. To start a new lifestyle posed a challenge. I could not imagine walking with a stick”, she exclaims. “I was obsessed by the Kiswahili saying that says “hujafa hujaumbika”: meaning “it is self deceit to idolize ones aesthetic appearances while still alive (for anything can happen anytime)”.

A month later, she tried to return to no avail given that her contract had been terminated because of long absence at work. This was like adding salt to a fresh wound. “It was an agonising experience. I did not know where to go and what to do as a disabled person” she narrates.

Since she came from a poor family and suffered long time unemployment, Penina could not afford a prosthetic for over a decade. Instead, she managed with a pair of crutches. In 2009, she joined a project for disabled people (LESS is more project) organized by the Italian NGO – CEFA i.e. a six-month course on cookery and housekeeping. The course offered beneficiaries’ access to rehabilitation services at CCBRT Disability Hospital where, for the first time, she acquired the long needed prosthetic.

Penina explains how thankful she has been for the device. However she laments that it did little to alleviate stigma that she faces, especially in workplaces where discrimination has been rife. “My career as a housekeeper requires standing for a long time, sometime climbing stairs or ladders. In contrast to the career requirements, I regarded unfit for job whenever I’m called for interviews.”

After facing employment challenges, she focused on self employment instead and with the help of family members and benefactors, she managed to start a small business selling food. This earns her a meager income in a city that is becoming more and more expensive. “ICRC should intervene to ensure assistive devices are either
available for free or at affordable prices as they increase the level of functionality and help disabled people live an independent life”, she concludes.

6.2 Case Study DODOMA

Daniel was an experienced painter, could climb high on the ladder in his painting work. He used to ride his bicycle to and from work, besides he can ride a motor cycle and drives a car as well. While perfectly fulfilling his duties, few people recognize his disability because he walks just like any other person and his two prosthetic legs are always covered by his trousers.

He could not hold back his tears when narrating his story; He was born in 1982 in Mpwapwa District (Dodoma region). He is married and father of a son. At the age of 14 (1996), he incurred a serious road accident that left his two legs severely injured. He was attended at Mvumi Mission Hospital in Dodoma where amputation of his both legs was recommended (knee-downwards). The exercise was carried out at the Dodoma Regional Hospital.

The most painful part of his story stem from the fact that, in the course of treatment, his father forsook and abandoned him at the hospital after realizing that he could not walk in a natural way anymore. His father left a note to the orthopedist that read; “Doctor, from today onwards this boy is yours. I am leaving. If he gets any problem, will be none of my business, is up to you” To disguise his evil intention, his father lied to relatives that Daniel has already passed away.

From that day on, Dr Samwel (the head of orthopedic unit at Dodoma regional hospital) took full responsibility of the Daniel’s needs. Daniel was later on provided with wheel chair which he used for one year and then acquired prosthetics from the same hospital facility and subsequent ones from KCMC hospital in Moshi.

Apart from treatment and assistive devices, Dr Samwel supported the Daniel’s vocational needs as well. That is, attending a training course on painting at VETA Dodoma for one year. Painting was his long-time dream job even before acquiring a disability. After graduating, he secured a job at Dodoma Water Authority where he worked as a painter for seven months and then quit on grounds of little pay.

Daniel is now working as a freelance painter which earns him more income such that he is able to support himself and his family. One day he visited his father and family members, they were greatly shocked to see him walking steadily. The father unbelievably felt ashamed, apologized for the abandonment and resumed the relationship. Daniel now extends financial support to his father as well.

He does not suffer discrimination in workplaces and from community around because few are aware of his disability. But securing piece job is intermittent such that sometimes he stays without earning for a couple of weeks. This makes him think how to realize his dream of opening a big retail and wholesale shop for selling paints. He is looking for a funder to make his dream a reality. Furthermore, he still has an ambition of undertaking further studies on painting.
6.3 Case Study KILIMANJARO

James is the father of two sons and he is happily married. He is a founder member of Kilimanjaro Association of Spinal Cord Injured Tanzania (KASI), Executive Director of Friends of Paraplegia (FoP), Kilimanjaro Regional Secretary of SHIVYAWATA and a teacher for Swahili language to foreigners. He has been working tirelessly to assist persons with disabilities for more than 25 years.

He acquired paraplegia from chest down and therefore uses a wheelchair, cushion, intermittent catheters and urine drainage bags. His disability resulted from an operation done in 1983 to remove pus in the spinal cord that caused loss of motor control. This happened when he was in secondary school at the age of 18 years and the event interfered with his studies as he was required to stay in hospital for three years. He could not move until he purchased his first wheel chair in 1984 from family support. Since then, he could do most of his daily activities more independently, though he admits to face four main barriers namely mobility hardship, indirect stigma, incontinent, some health complications such as massive pressure wounds, heart problems and complications on digestive system and financial constraints.

Explaining the financial challenge he said “‘For the entire period of my disability, I have never received any assistance from the government. Finding money for a device, transport and treatment was not easy; sometimes I had to work to get money even if I was not feeling well.’"

The wheelchair enabled him organize a number of successful initiatives such as spearheading the formation of KASI in 1991 that organized peer education sessions to spread awareness on spinal cord injuries. In initial years of his disability, community awareness on spinal cord injury was very low.

In 2006, James founded an NGO known as “Friends of paraplegia” that run projects to assist and improve the living conditions of the spinal cord injured in the following aspects:

- Free provision of suitable wheel chairs to beneficiaries to facilitate free and independent movements
- Provision of financial capitals for income generating activities to help members have steady income and live an economically autonomous life
- Construction of decent accessible houses to beneficiaries with supply of all necessities (Beds, Mattresses, urinary equipments and accessible toilets and so on) or adjust client’s homes to make them wheelchair-friendly.

So far this project has benefited the total of 46 persons with spinal cord injury in Moshi town.

He concluded his remarks by making a call to donors to consider funding FoP as it help out beneficiaries have full control of their lives on sustainable basis. His future plan is to reach more beneficiaries and extend services to those living out of Moshi as well.
6.4 Case Study MBEYA

Anne was born in 1967 and is the mother of five children. She was engaged in auctions across Mbeya rural villages selling second-hand clothes and food products for 25 years before she suffered a severe gangrene on her right leg in 2010. To stop the infection from spreading to other parts, thigh amputation was recommended by doctors of Mbeya Referral Hospital where she was attending treatment.

After a month of care, her husband deserted her and their children. During the entire period of sickness, she spent all of her capital to nil balance. Thus she suffered triple impacts i.e. acquiring a disability, family crumbling and dry up of capital. This made her life extremely tough. After being discharged from hospital, she stayed at home for eight months without a prosthetic support; the situation that compelled her to stay idle and led dependence life supported by close relatives.

In 2011, Anne’s relatives, neighbours and members of her economic group assisted her to secure a prosthetic. The device helped her pick up and turn around her life once again. She started a poultry project in 2011 using two spare rooms in her house to raise chicken. She was supported with capital of Tsh 100,000 by a relative and another Tsh 500,000 from a family economic group and began to raise 50 broilers chicks. The stock has now multiplied to 250. She then constructed two extra rooms to accommodate the increasing number of chickens.

She later on expanded her capital and opened-up a shop for chicken feeds at church premises though she could not stay there for long before the church issued her a notice to leave to allow further developments of the estate.

Apart from chicken, she has four goats and two cows; though, for the moment, she keeps her cows in the neighbour’s premise due to limited space at home. Anna regards this as a challenge because she needs two additional rooms for cows and goats.

Despite challenges, she feels much proud of her project and the prosthesis that made it possible for her to live independent life and send her children to school.

Anna’s dreams reside on building large rooms for her chicken, to re-open an office for selling chicken feeds and other related stuffs. She also plans to start layers project with at least 500 chicks. She appeals to be assisted with additional capital to accomplish her grand life plans.

6.5 Case Study MWANZA

Bugando Medical Centre had never manufactured wheel chairs or tricycles. Thus the period before 1993, Wheel chair and tricycle users living in Mwanza and surrounding regions used to buy tricycles and wheel chairs from Tabora and Dar es salaam. The transportation costs increased prices of such devices.
To address that challenge, in 1994, CHAWATA Mwanza (Tanzania Association of Disabled People) with assistance from Danish Development Agency (MS-TCDC -Training Centre for Development Cooperation) launched an assistive devices workshop to provide tricycles, wheel chairs, sticks, calipers and supportive shoes at a subsidized price. They introduced cost-sharing scheme where beneficiaries were required to contribute a little amount of money for devices.

The grant enabled the purchase of a plot, construction of the workshop structure and availability of fund to cover the running cost. The Danish organization also offered the technical expertise to workshop technicians who already attended welding courses at Yombo Vocational Training Center (Dar es salaam) and Mirongo (Mwanza).

The centre quickly earned a reputation in lake zone as it received orders from Mwanza, Geita, Shinyanga, Mara, Kagera and Simiyu regions. It also supplied tricycles and wheelchairs to UNHCR’s refugee camps in Kagera and Kigoma. Even Bugando Hospital has been directing PWDs in need of tricycles or Wheel chairs to this workshop.

The workshop demonstrated a tremendous performance until 1997 when donors phased out due to the said economic crisis in Denmark. Thus the workshop had to operate from its own little funds. Considering the running costs, rising costs of raw materials and other factors; the workshop was forced to cancel subsidy scheme and started to operate as a business that caused prices of devices to rise. The high priced devices reduced number of customers, affected the workshop’s income that eventually has led to cut number of staff with Disabilities hired by the center and PWDs’ could no longer afford devices.

In order to supplement its income, the center now makes both disability and non-disability equipment such as doors and window grills. The center has hired two permanent staffs and two temporary ones with Disabilities of whom are paid according to their piece works. The center produces somehow cheaper and durable devices and contributes about 20% of its revenue to support CHAWATA’s (DPO) operations.

CHAWATA is dreaming of expanding the workshop, increase number of employees with Disabilities, recruit more young technicians for future sustainability of the workshop. The group plans to start building tricycles that use motors to enable easy ride and minimize side effects to its users. But tricycles with motors will require costly raw materials and will sell more (from Tsh 800,000 and above each).

In order to serve best, the center has a following wish list; the workshop requires a show room to display workshop products in Mwanza city center as a way to better advertise the center’s work and a container to store finished goods when they are in bulk. The current workshop building does not afford enough space for storing finished tricycles when they are in big numbers. The center also needs to replace its old machineries, update technical expertise of its technicians, and increase number of working tools and staff.

The small capital they have incapacitated the centre and jeopardize its future sustainability. In case of big orders, they depend on advance payment of customers to purchase raw materials of ordered equipment. But if the
customer refuses to pay advance amount, they have to decline a particular tender because they can’t proceed making it from their own resources. They gave an example of how they recently dropped a 10 Million tender from the said reason.

The group finally made a call to donors to turn on and give life to the center. By so doing they believe PWDs will benefit much in terms of cheaper and quality devices. The support will directly assist employment of PWDs and ensure permanent source of income to CHAWATA DPO too.