Government of Sierra Leone

Assistive Technology (AT)

Policy and Strategic Plan

2021-25

Ministry of Health and Sanitation

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List of Acronyms and Abbreviations

AP	Assistive Products
AT	Assistive Technology
BPEHS	Basic Package of Essential Health Services
CCA	Country Capacity Assessment
CHAI	Clinton Health Access Initiative
CHC	Community Health Centre
CHP	Community Health Post
CHW	Community Health Worker
CRP	Council of Rehabilitation Professionals
CRPD	Convention on the Rights of Persons with Disabilities
DHIS2	District Health Information System
DHMT	District Health Management Team
DHRH	Directorate of Human Resources in Health
DRAT	Department of Rehabilitation and Assistive Technology
EHS	Essential Health Services
GATE	Global Cooperation on Assistive Technology
GDI	Global Disability Innovation
GoSL	Government of Sierra Leone
HRH	Human Resources in Health
HRMO	Human Resources Management Office
ICF	WHO International Classification of Functioning
IPD	In-Patient Departments
LMICs	Low-to-Middle Income Countries
MBSSE	Ministry of Basic and Senior Secondary Education
MCHP	Maternal Child Health Post
MDAs	Ministry Departments and Agencies
MNDP	Mid-Term National Development Plan
MoHS	Ministry of Health and Sanitation
MoSW	Ministry of Social Welfare
MRAT	Medical Rehabilitation and Assistive Technology
MRW	Multipurpose Rehabilitation Workers
MSWGCA	Ministry of Social Welfare, Gender and Children's Affairs
MTA	Ministry of Transport and Aviation
NCD	Non-Communicable Diseases
NCDs	Non-Communicable Disease
NCPD	National Commission for Persons with Disabilities
NDATR	National Disability, Assistive Technology and Rehabilitation
NDMA	National Disaster Management Agency
NGOs	Non-Governmental Organizations
NHP	National Health Policies
NHSP	National Health Strategic Plan
NMSA	National Medical Supply Agency
NPRAT	National Physical Rehabilitation and Assistive Technology

NRATP	National Rehabilitation and AT Program
NRC	National Rehabilitation Centre
NRCPD	National Rehabilitation Committee on Persons with Disability
OM	Orientation and Mobility
OPD	Out-Patient Departments
OPDs	Organizations of People with Disabilities
PHC	Population and Housing Census
PHU	Public Health Unit
PSC	Public Service Commission
rATA	rapid Assistive Technology Assessment
SDGs	Sustainable Development Goals
SLATRC	Sierra Leone Assistive Technology Resource Centre
SLeSHI	Sierra Leone Social Health Insurance
SLIPAT	Sierra Leone Institute of Physiotherapy and Assistive Technology
SLUDI	Sierra Leone Union on Disability Issues
SoS	Scheme of Service
SSL	Statistics Sierra Leone
TWG	Technical Working Group
UHC	Universal Health Coverage
UNCPRD	United Nation Convention on the Rights of Persons with Disability
UNICEF	United Nations Children’s Fund
WHO	World Health Organization

Foreword

Disability is a complex and evolving concept, which results from the interaction between persons with impairments and attitudinal and environmental barriers. Persons with Disabilities (PwDs) include those who have long-term physical, mental, intellectual, or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others. The government of SL has demonstrated its commitment to disability issues by ratifying the UN Convention on the Rights of Persons with Disabilities (CRPD) in the past and enacting the Persons with Disability Act, 2011.

In the same vein, Assistive Technology (AT) Policy and Strategic Plan from my ministry reiterates the Government of Sierra Leone's (GoSL) commitment to achieving the Sustainable Development Goals (SDGs). Particularly SDG 3 which calls for good health and well-being, and Universal Health Coverage (UHC) that seeks to ensure that all people in the country can receive quality health services without suffering financial hardship.

Globally, access to Assistive Technology (AT) is recognized as one of the key health interventions. AT can enable people with difficulties in functioning to live healthy, productive, independent, and dignified lives, participating in education, the labor market, and social life, thus contributing to the nation's growth. Timely access to appropriate AT can reduce the burden on already stretched formal health and support services.

The demand for AT products in Sierra Leone is quite evident just like any other Low-to-Middle Income Countries (LMICs). Nevertheless, the inadequacy of the products and the multiple market barriers both in the supply of appropriate, affordable, and quality products and in the demand for these products by users, service providers, and national health system indicate complexities of the challenges that any AT interventions come across to succeed. The production of this document is a reflection of the ministry's drive to bring systemic change that removes barriers and promote equitable access to AT for people with disabilities. Equity must be improved, and financial risk protection provided to the poor, marginalized, and other vulnerable groups who are unable to pay for health services including AT.

The AT Policy and Strategic Plan aims to develop a conducive ecosystem for the delivery of AT services equitably and sustainably. A set of 40 potential activities have been identified as a road map to achieve the 5 policy objectives outlined in the document. The document is a culmination of a series of multi-stakeholder consultations reflecting the MoHS approach of inclusiveness and leaving no one behind. My appeal to development partners is that if we implement this document together, we can bring tangible improvements in access to AT for PwDs.

Austin Demby

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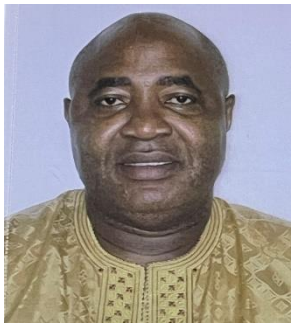
Acknowledgement



The *Assistive Technology Policy and Strategic Plan* was developed by the Clinton Health Access Initiative under the AT2030 Programme Country Investment Fund. The AT2030 Programme is funded by the UK Aid from the UK government and led by the Global Disability Innovation Hub.

The Ministry of Health and Sanitation (MoHS) acknowledges the dedicated effort and technical support and advice of the National Assistive Technology Technical Working Group (AT TWG) members with their respective organizations, Organizations of Persons with Disabilities (OPDs) and all contributors who made the development of this document on Rehabilitation and Assistive Technology Policy and Strategic Plan possible. Specifically, we wish to acknowledge the support of Dr. Santigie Sesay (Director of Non-Communicable Diseases - NCDs, Mental Health and Rehabilitation), Dr. Selassi D'Almeida and WHO Regional team for their review and contribution, Mr. Ismaila Kebbie (Programme Manager for the National Rehabilitation Programme and Center), Mr. Francis Kabia (Director of Welfare, Ministry of Social Welfare), Mr. Saa Lamin Kortequee (Executive Secretary, National Commission for Persons with Disability), Mr. Jonathan Conteh (Regional Coordinator for National Commission for Persons with Disability), Mr. Santigie Kargbo (President, Sierra Leone Union on Disability Issues) for their tireless support in the successful completion of this Rehabilitation and Assistive Technology Policy and Strategic Plan, 2021-2025.

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Executive Summary

The 1991 constitution of Sierra Leone incorporates the main elements of the United Nations standard rules on equality of opportunities for persons with disabilities. It also includes the recently ratified UN Convention on the Rights of Persons with Disabilities (UNCRPD) and domesticated into the Persons with Disability Act 2011. These rules and the convention provide important framework for any policy and strategy in Sierra Leone to achieve equalization of opportunities for persons with functional difficulties. Functional difficulty is an overarching term for impairments, activity limitations and participation restrictions.

The Government of Sierra Leone is committed to implementing the Sustainable Development Goals (SDGs) which place greater emphasis on the need for greater social inclusion and equality. The pledge of the SDGs of 'leaving no one behind' addresses people with disabilities who are often marginalized. As recognized globally, AT has a tremendous scope of ensuring equitable achievements of the SDGs by providing products and services that alleviate impairments and barriers enabling them to actively participate as equal members of society. AT, as defined by the World Health Organization (WHO) is a subset of health technology, referring to assistive products and related systems and services developed for people to maintain or improve functioning, thereby promoting well-being. However, not everyone has access to appropriate AT. The WHO estimates that only 1 in 10 people globally have access to the AT they need[1]. A health condition may include a variety of circumstances such as pregnancy, ageing, stress, congenital anomaly, or genetic predisposition. AT enables people with difficulties in functioning to live healthy, productive, independent, and dignified lives; participating in education, the labor market and social life. It can reduce the burden on formal health and support services and care givers.

It is also worth noting that the population of Sierra Leone is quite young, 78% are aged between 5 and 50 years with elder population (above 50) constituting only 9%. As per the Sierra Leone Population and Housing Census (PHC) 2015, the prevalence of disability is recorded as 1.3% (93,129) of which the northern region has the highest number of persons with disabilities (32,849), which represents 35.3% of all persons with disabilities in the country. Disease or illness is the major cause of disability among the country's disabled population. This is followed by congenital disability (16.2 %), other non-specified causes (10.5%), accidents (8.8%) and natural ageing (8.1%). Other causes of disability, including road traffic accidents, occupational injuries, and injuries sustained in the war, and injuries that were not specified accounted for less than 5% of the total number of persons with disabilities.

Therefore, policies and strategies that envision a well-functioning ecosystem with the capacity to provide quality and affordable rehabilitation and assistive technology services in a timely manner should be made a priority.

The Ministry of Health and Sanitation (MoHS) and its Agency, the National Rehabilitation Centre (NRC) are primarily responsible for ensuring quality, affordable and customized rehabilitation and

[1] World Health Organization. Assistive technology factsheet. 2018 (https://www.who.int/en/news-room/fact-sheets/detail/assistive-technology, accessed 11 November 2020).

assistive products and services to persons with disabilities. The policy acknowledges the fact that rehabilitation and assistive technology services should be integrated at all levels of health care delivery i.e., primary, secondary, and tertiary. In addition, policy envisages the highest degree of inter-sectoral coordination to ensure equitable access to AT services in the population through increased support and participation from non-health ministry's/departments e.g., education, road and transport, labor, and social welfare.

The Assistive Technology Policy and Strategic Plan intends to guide the government, MoHS, intersectoral ministries, Organizations of Persons with Disabilities (OPD), development partners, donors, and private players in the development of assistive technology services for the country. Furthermore, the document developed 5 policy statements, 8 strategic objectives, and 40 activities ranging from coordination of the AT ecosystem, to raising resources and monitoring full implementation of the policy strategic plan. In doing so, we are addressing, in a holistic manner, the provision of AT products and services to PwDs at our national and regional centers. The activity of these policy statements and their allied objectives have been costed to provide a strategic level view of how much it will cost government and partners to implement these AT activities.

The document also draws attention to key activities such as creation of a disability medical board to provide necessary medical guidance on the process. Screening, evaluation, and certification of disability based on type and level of functional disability and, partnerships with regional and international technical institutions to build the in-country capacity to produce, distribute and monitor the use of AT services. A strong emphasis has been laid on on-site and online skill-based training and certification of AT professionals in the system. Special considerations should be made in promoting and rewarding professionals for their continuous skill upgradation and services in-country. The long-term vision is to develop a National Assistive Technology Program to ensure affordable, quality and equitable AT services to the population.

1. Introduction

1.1 Country Context and Background

The 1991 constitution of Sierra Leone incorporates the main elements of the United Nations standard rules on equality of opportunities for persons with disabilities as well as the recently ratified UN Convention on the Rights of Persons with Disabilities (UNCRPD), which was enacted in the Sierra Leone Persons with Disability Act, 2011. These rules and the convention provide important framework for any policy in Sierra Leone to achieve equalization of opportunities for persons with functional difficulties.

Disability

Disability is an evolving concept, which results from the interaction between persons with impairments and attitudinal and environmental barriers that hinders full and effective participation in society on an equal basis with others. PwDs include those who have long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others.

Functional Difficulty

Functional difficulty is an overarching term for impairments, activity limitations and participation restrictions. The WHO International Classification of Functioning, Disability and Health 2 (ICF) defines impairments as problems in body function or structure such as a significant deviation or loss, activity limitations as difficulties an individual may have in executing a task or action, and participation restrictions as problems an individual may experience in involvement in life situations.

Medical Rehabilitation

According to WHO, rehabilitation is a set of interventions that aim to optimize functioning and reduce disability in individuals with health conditions in interaction with their environment. Medical Rehabilitation is introduced here to specifically refer to the enhancement and restoration of the functional ability and quality of life of people with disabilities. Health condition refers to disease (acute or chronic), disorder, injury or trauma. A health condition may also include other circumstances such as pregnancy, ageing, stress, congenital anomaly, or genetic predisposition.

Assistive Technology

As per WHO, AT, a subset of health technology, refers to assistive products and related systems and services developed for people to maintain or improve functioning and thereby promote well-being. AT enables people with difficulties in functioning to live healthy, productive, independent, and dignified lives, participating in education, the labour market and social life. They can reduce the need for formal health and support services, long-term care, and the burden on carers.

Assistive Products (APs) include any external product whose primary purpose is to maintain or improve an individual's functioning and independence and thereby promote his or her well-being.

They include (but are not limited to) wheelchairs, hearing aids, walking frames, spectacles, pill organizers and prosthetic limbs. They also include assistive information and communication technology such as memory aids, specialized computer hardware and software, augmentative and alternative communication, and customized telephones. Assistive products are essential tools to compensate for an impairment/loss of intrinsic capacity, to reduce the consequences of gradual functional decline, to reduce the need for caregivers, for primary and secondary prevention, and to help to rationalize health and welfare costs.

1.2 Sierra Leone's Disability Landscape

The population of Sierra Leone is quite young, 78% fall into age group of 5 to 50 years with the elder population (above 50) constituting only 9%. As per the Population and Housing Census (PHC) 2015, the prevalence of disability is 1.3% (93,129) of which the northern region has the highest number of persons with disabilities (32,849), which represents 35.3% of all persons with disabilities in the country. Disease or illness is the major cause of disability among the country's disabled population, accounting for 40.5% cases of the 93,129 people with disability in the country. This is followed by congenital disability (16.2 %), other non-specified causes (10.5%), accidents (8.8%) and natural ageing (8.1%). Other causes of disability, including road traffic accidents, occupational injuries, and injuries sustained in the war, and injuries that were not specified accounted for less than 5% of the total number of persons with disabilities.

The percentage of persons with disabilities in Sierra Leone has been dramatically increased by the long and bloody civil war in 2002, which is a major contributor for significant rise in individuals with disabilities. The deadly Ebola Scourge in 2014, the devastating Freetown mudslide in 2016, and Covid19 in 2019 coupled with a weak health system further added to the challenges of the PwDs.

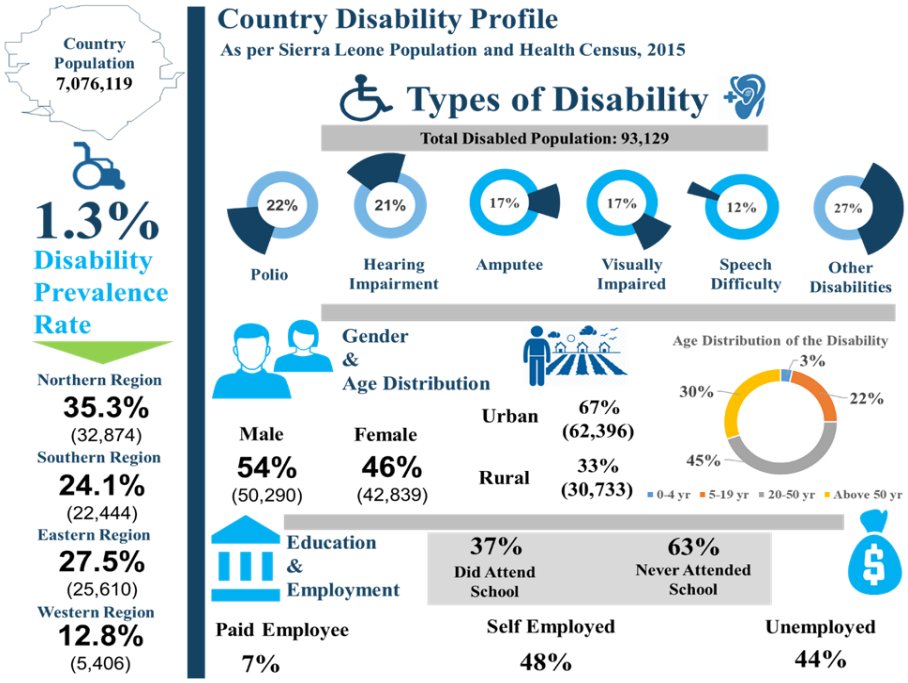

Figure 1: Sierra Leone disability profile

2. Policy and Strategy Framework

This Rehabilitation and Assistive Technology policy envisions a well-functioning health ecosystem that has the capacity to provide quality rehabilitative services and assistive products at an affordable price and in a timely manner to persons with disabilities. The strategic plan defines the long-term vision and commitment of the government to strengthen rehabilitation and assistive technology services in a time-bound manner. The whole document intends to guide the government, Ministry of Health and Sanitation (MoHS), intersectoral ministries, Organizations of Persons with Disabilities (OPDs), development partners, donors, and private players in the development of rehabilitation and assistive technology services for the country.

The primary responsibility of ensuring quality, affordable and customized rehabilitation and assistive device services lies with the MoHS. Therefore this policy acknowledges the fact that rehabilitation and assistive technology services should be integrated at all levels of health care delivery i.e., primary, secondary, and tertiary. In addition, the policy envisages the highest degree of inter-sectoral coordination to ensure equitable access to rehabilitation and AT services in the population through increased support and participation from non-health ministry's/departments e.g., education, road and transport, labor, and social welfare.

The policy guidelines recognize and address the needs and rights of persons with disabilities to deal with diverse tasks and challenges in a dignified manner.

The aim of the rehabilitation and assistive technology policy and strategic plan is to provide PwDs the best possible opportunity of full and effective participation and inclusion in society. They deserve the opportunities to study, work, access services, etc. that are equal to those of other citizens. This will maximize the potential for persons with disabilities to contribute to the development of the nation.

The Policy and Strategy Framework is shown in Figure 2 and serves as the guiding policy document for the GoSL. It illustrates the procedures and processes related to AT policy development. Based on the review, research and reflection of previous work done; the policy framework translates the goals outlined in the national, regional and legal frameworks. The methodology used in developing the policy involved a participatory and consultative process. The thematic areas upon which the policies will be based are summarized. Coordination and communication are achieved through cross cutting activities within Ministry, Departments and Agencies (MDAs) for example, MoHS, MoSW, MBSSE, MTA, NRC, NCPD, etc. These MDAs provide leadership at the national, global and local levels to increase the adoption and use of ATs. For example, the MoHS could establish a national procurement framework with defined standards for AT and assess manufacturers / products to ensure they meet these standards. Suppliers and products that are assessed as meeting the nationally approved framework standards could then be procured or used by agencies at the local level, e.g. MoSW or NCPD, which will benefit from national expertise, and not have to duplicate the assessment process.

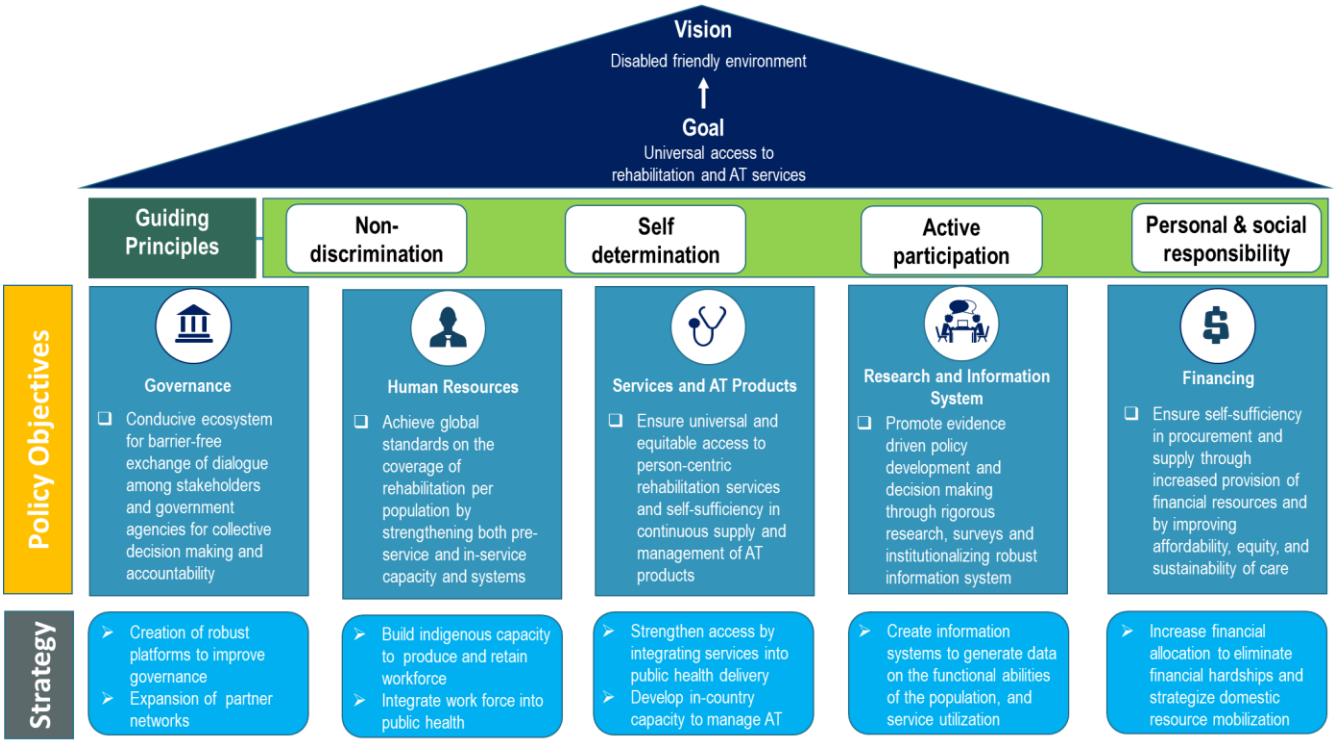

Figure 2: Illustrated policy framework development

2.1 Rationale

2.1.1 Why AT?

The development of the Assistive Technology (AT) policy is consistent with the Government of Sierra Leone's desire to prioritize disability inclusive development, as clearly addressed in the nation's Mid-Term National Development Plan (MTNDP, 2019 to 2023). The MTNDP outlined actions to review, improve and develop policies that relate to the provision of ATs required by persons with disabilities. This AT policy also aligns with several national, regional and international agreements and obligations to which Sierra Leone has signed up to. The AT policy goals, objectives and guiding principles have been derived from the National Health Policies (NHP) including but not limited to CRPD, The Persons with Disability Act, 2011 and the Basic Package of Essential Health Services (BPEHS), WHO Global Disability Action Plan, Universal Health Coverage (UHC), Sustainable Development Goals (SDGs), ASTANA Declaration and AT 2030.

Assistive technology services are scarce, fragmented and in some instances non-existent in Sierra Leone, especially from the MoHS. This lack of adequate and quality assistive technology services poses a great challenge for the people living with disability in respect of their ability to contribute to the society and country despite their due willingness. The need of AT policy in Sierra Leone emerged strongly in the findings of the Country Capacity Assessment (CCA) Report 2019. The demand for assistive devices from the users is set to rise due to a recent increase in Non-Communicable Diseases (NCDs), and road traffic accident cases. Although the government is committed to ensure that demands of AT products are met as per provisions enshrined in the

CRPD and The Persons with Disability Act, 2011 in Sierra Leone, there has been lack of strategic guidelines, plans and thus foundational policies on AT that could guide the 360 degree and equitable development of AT services in the country. The findings from the CCA Report revealed that mobility impairment is accorded the most prevalent while less attention is given to other disabilities like hearing, vision, cognitive and communication impairment.

2.1.2 Accountability and Responsibility

This AT policy is cross-cutting and covers several inter-agencies roles. However, the primary responsibilities lie with two government agencies: The Ministry of Health and Sanitation (MoHS) and National Rehabilitation Centre (NRC). Both agencies will engage with other agencies such as NCPD and MoSW. The MoHS lacks the governance mechanisms and systems to capture information on AT needs, and AT services provided to the people living with disability. The main providers of AT services are non-government organizations which operate on a charitable basis, work in silos and often demonstrate poor coordination with MoHS. This leads to ineffective investments in terms of duplication, not meeting users' requirements, deployment of unsustainable maintenance systems and high abandonment rate of AT products. The inter-sectoral coordination has remained inadequate due to the lack of a clear and shared vision on AT services. Insufficient funding is also a serious challenge, resulting from poor attention to provision of AT services by the government.

Sierra Leone has never had an AT policy and strategy before and so defining roles and responsibilities for disability and AT is an inherently complex issue. In the context of AT, the Directorate of NCDs and Mental Health is under MoHS but works in collaboration with the former Ministry of Social Welfare, Gender and Children's Affairs (MSWGCA), now the Ministry of Social Welfare, and National Commission for Persons with Disabilities. Disability falls under the remit of the Ministry of Social Welfare, and specifically under the Deputy Minister of Social Welfare. The Ministry has a Directorate of Social Welfare for Disability and is also the lead agency for the establishment of the National Commission for Persons with Disability as provided for by the Persons with Disability Act, 2011. The Ministry also chairs the Disability Committee, formerly called National Rehabilitation Committee on Persons with Disability (NRCPD), which coordinates activities and resources and gathers Non-Governmental Organizations (NGOs) working on disability and representatives of beneficiaries. The MoHS is mandated with both physical and mental rehabilitation services including services for clinical assessment and management of disability, AT products, standards, procurements, distribution, and maintenance through regional and national rehabilitation centers. The commission is responsible for regulating implementation of disability (including AT) policies, guidelines, acts etc. and advises government on the provisions committed or required changes, as necessary.

2.2 Vision, Goal and Objectives

Vision

The vision of this policy aims to create an enabling environment for persons with disabilities and other people in need of rehabilitation services to enjoy full participation in the community with equal rights and opportunities. It also envisions universal access to user centric, and affordable

assistive technology as a key agenda in all spheres of social, economic, and political life in the country.

Goal

The goal of the policy is ensuring universal access to rehabilitation and AT services through the provision of universally accessible, equitable and affordable assistive products in the country. This policy, therefore, acknowledges that the provision of rehabilitation and AT services must be driven by the government, based on principles of human rights, social justice, equity, continuum of care and person-centered approach.

Objectives

- To create an enabling environment to ensure availability and access to person-centered and affordable rehabilitation and AT services in specific or general cases.
- To provide guidance for eliminating barriers through enacting appropriate governance mechanisms, rehabilitation and AT program, products, provision of services and functional processes to promote the full-scale development of the policy and strategic plan.
- To develop and strengthen systems for rehabilitation and assistive technology through the continuous and sustainable building of capacity in infrastructure, professionals, and investments in research and technology.
- To ensure inseparable integration of rehabilitation and AT services within all levels of care, community, education, road, and transport, employment, and other social areas through robust inter-sectoral coordination between Ministry, Departments and Agencies (MDAs), donors, development partners and NGOs

2.3 Methodology

The methodology was designed to enable interactions with, and among, stakeholders, to integrate explicit knowledge and to guide the policy development. It was characterized by participatory and consultative processes; having clear objectives, being inclusive and transparent, providing an opportunity to reflect on the applicability of evidence in different contexts and promoting dialogue among several types of stakeholders. To meet the common goals of a collaborative policy and strategy synthesis, the experts from National Physical Rehabilitation and Assistive Technology (NPRAT) TWG were invited to provide all necessary guidance and finalizing the framework of the policy. The Director of NCDs and Mental Health acted as a Secretariat and led this initiative. The validation of the draft policy was conducted by a larger group including participants from various related ministries, commission, OPDs, NGOs, WHO, World Bank etc.

2.3.1 Guiding Principles

The Rehabilitation and AT Policy is guided by the four WHO Guiding Principles which aim to place the individual citizen in the center when it comes to policy-shaping. These are:

- **Non-discrimination** - The adaptation of the public sphere so that everyone, based on their own abilities, has an equal opportunity to acquire the same living conditions and enjoy and discharge their rights and responsibilities as members of civil society.

- **Self-determination** - The freedom of the individual and equal opportunities to determine one's own life direction and be respected for one's choices.
- **Active participation** - Work towards a society in which everyone could participate actively based on their abilities.
- **Personal and social responsibility** - Responsibility for one's own life and joint social responsibility are important. Disability occurs when a gap exists between the capabilities of the individual and the functional requirements of his or her surroundings.

2.3.2 Scope

For the purpose of this document, the term rehabilitation also includes habilitation. Habilitation is used in relation to activities aimed at maximizing the functioning of children who acquire impairment congenitally or early in life. The scope of the policy and strategy covers (but is not limited to) persons with disability including people who are traditionally understood as disabled, such as children born with cerebral palsy, congenital and hereditary disorders, development delays, wheelchair users, persons who are blind or deaf or people with intellectual impairments or mental health conditions, as well as the wider group of persons ranging from school going children to elders who experience difficulties in functioning due to a wide range of conditions such as ophthalmological, speech disorders, noncommunicable diseases, infectious diseases, neurological disorders, injuries, and conditions that result from the ageing process.

3. Policies, Strategies and Activities

3.1 Rehabilitation and AT Governance

Policy Statement 1: Develop a conducive ecosystem for improved AT and medical rehabilitation through awareness raising. Improving coordination and implementation between relevant ministries and departments responsible for the provision of health, AT, medical rehabilitation and associated services for persons with limited functions/disabilities with an increased focus on governance

Strategy 1a: *Create a Ministry of Health platform/mechanism that engender dialogue to promoting collective decision making at different levels.*

Activity 1: *Constitute and hold regular meetings of National Disability, Assistive Technology and Rehabilitation Technical Working Group (NDATR TWG) within MoHS to support the larger disability committee existing under MoSW*

- To ensure a focused and scientific approach towards rehabilitation and AT services, MoHS will establish an advisory forum as NDATR TWG as an immediate response to this policy. The forum will serve as a larger disability committee to support existing committees under MoSW. The forum will guide, oversee, and advise the government on the rehabilitation and AT particularly from the physical and medical rehabilitation perspective, including AT services in the health facility, community, home, workplace, schools/universities, road, and public transport. The TWG will be chaired by MoHS with NCPD/MoSW as a co-chair.

Activity 2: Develop and implement a rehabilitation and AT multisectoral plan with an emphasis on increased accountability from Ministries, Department and Agencies (MDAs)

- MoHS in close collaboration with MoSW and NCPD will develop rehabilitation and AT multi-sectoral action plan. The plan will identify and specify the roles of key Ministries, Departments and Agencies (MDAs) involved in the provision of assistive technology services to ensure the implementation of AT services. MoSW will ensure that an accountability framework for MDAs is added as a part of the multisectoral plan.

Activity 3: AT in disaster and conflict preparedness and response in national plan.

- MoHS, in close collaboration with the National Disaster Management Agency (NDMA) and other relevant agencies, will ensure the provision of AT in disaster and conflict situations. Preparedness and response plans must ensure that pre-existing needs and those emerging as a result of these situations are adequately addressed.

Activity 4: Create a comprehensive website on disability and rehabilitation with a focus on access to AT services, hosting various information, documents and plans and thereby increasing awareness.

- MoHS in close collaboration with MoSW and NCPD will develop a website with a focus on disability, rehabilitation, and AT services. The website will be used for hosting various

rehabilitation and AT service-related policy documents, guidelines, implementation plan, notifications, circulars etc. which are issued by various agencies from time to time. A detailed description of the availability of various rehabilitation and AT services under MoHS at various levels of the health care should also be provided and updated on regular basis.

Activity 5: Develop and disseminate advocacy materials, including fact sheets for rehabilitation and AT needs and services through active engagement of media during national, regional, district and community level awareness campaigns

- MoHS, MoSW and NCPD will develop and implement a communication and awareness strategy with a focus on rehabilitation and AT needs, and availability of services in the country. The engagement of OPDs is extremely critical to design and develop the communication plan. The plan should also be linked to general health and disability awareness campaigns/activities organized by various ministries and departments.

Strategy 1b: Government of Sierra Leone and other stakeholders are committed to ensuring the provision of resources and action from a wide range of international, regional and national partners, through the establishment of dedicated institutions and the strengthening existing institutions at national, regional and district level

Activity 6: MoHS will establish a dedicated Directorate of Rehabilitation and Assistive Technology with functional linkages to associated directorates within the MoHS, MDAs and other development partners

- Rehabilitation and AT is generally treated as a specialized discipline of medicine, but it is integral to public health interventions. Recognizing the enormity and importance of the tasks involved, the MoHS will establish a dedicated Directorate of Medical Rehabilitation and Assistive Technology to look after all the affairs of disability, rehabilitation, and AT in public health. The functional linkages will be ensured with other associated directorates within MoHS and other MDAs e.g., NCDs and mental health, primary healthcare, child health, communicable diseases, social welfare, security and emergency, primary and secondary education, road transport, science, and technology, research, and training etc.

Activity 7: MoHS will set up a state-of-the-art Sierra Leone Assistive Technology Resource Centre (SLATRC) in the National Rehabilitation Centre (NRC), Freetown to assist in AT policy and strategy development in the provision and mobilization of AT technical assistance to the associated ministries and capacity building.

- MoHS through the National Rehabilitation Centre (NRC) will establish a dedicated Sierra Leone Assistive Technology Resource Centre (SLATRC). The Resource Centre will be set up in the NRC, Freetown to provide technical assistance to MoHS and associated ministries in the development and implementation of AT policy and strategy for the country. SLARTC will ensure the integration of rehabilitation and AT services with primary and secondary level of care through development of the list of prioritized AT products, AT standards, AT procurement guidelines, piloting, research and development, health technology assessments, information,

and communication, community-based rehabilitation and AT services, community-based training tools for AT users etc. SLARTC will serve as the technical arm of Directorate of Medical Rehabilitation and Assistive Technology (MRAT) which shall work in close collaboration with Ministry of Social Welfare, NPCD, WHO, UNICEF, medical board, manufacturers, and suppliers and other national and international technical partners and NGOs.

Activity 8: Ensure key strategic documents such as National Health Strategic Plan (NHSP), BPEHS, Mid-Term Development Plan, etc. embed the government commitment for allocating resources for improving access to rehabilitation and assistive technology services

- MoHS in collaboration with MoSW and NCPD will ensure that access to rehabilitation and AT products is included in the key strategic documents of the country i.e., NHSP, BPEHS, Sierra Leone Education and Employment Policies, Public Works, Road, and Infrastructure etc. as published by the various MDAs periodically. This will ensure a long-term resource commitment and strategic direction to the AT development in the country.

- MoHS will develop a 5-year rehabilitation and AT strategy covering rehabilitation and AT priorities, implementation road map, and resource mobilization plan. The plan will cost the stipulated activities and lay a foundation for the Directorates to inform annual budget and mobilize resources. The Directorate progress will be measured against the successful accomplishment of the funded activities in a time-bound manner

3.2 Human Resource

Policy Statement 2: Meet global standards on the coverage of rehabilitation and AT professionals per 100,000 population through strengthening both pre-service and in-service management capacity and systems within MoHS and other disability stakeholders by ensuring quality, adequate, production, absorption, retention, and continuous learning and professional development of skilled staff

Strategy 2a: Build indigenous capacity for the production of need-based quality rehabilitation and AT workforce (Physiotherapy, Prosthetics, Orthotics, Social Workers, etc.) through improvements in the pre-service education

Activity 9: Develop a Rehabilitation and AT human resource training and capacity building plan 2030 based on the country's emerging needs for rehabilitation and AT services

- MoHS will undertake a comprehensive assessment of existing staffing levels, estimated service need/demand to determine current production capacity gaps, and pipeline to develop a comprehensive rehabilitation and AT human resource production plan 2030 with an implementation target by 2025. The plan will be carried out in collaboration with Directorate of Human Resource in Health (DHRH) and the Directorate of Training and Research (DTR) and other relevant partners will inform the country's HRH production plan.

Activity 10: Establish the government-owned "Sierra Leone Institute of Physiotherapy, and Assistive Technology" with support from development partners to ensure quality infrastructure, faculty, diagnostics, and laboratories for continuous production of the quality workforce

- The Department of Rehabilitation and Assistive Technology (DRAT) will develop a cadre mapping of both basic and advanced skills required in the country. Based on this, the government of Sierra Leone will set up 'Sierra Leone Institute of Physiotherapy and Assistive Technology' (SLIPAT) to ensure continuous and indigenous production of quality rehabilitation and AT human resources with additional provisions on training abroad for highly advanced skills. As part of the plan, special emphasis will be laid on the development of a curriculum with international standards for Prosthetics, Orthotists, Physiotherapy, and Occupational Therapy to produce the skillful human resource. Appropriate renumeration levels and other motivational schemes will be provided to retain staff. Additionally, the twinning with institutions abroad could add value in terms of cost effectiveness and sharing of resources and experiences

Activity 11: Produce and deploy Multipurpose Rehabilitation Workers (MRWs) at Community Health Centers (CHCs) to integrate promotive, preventive, basic care and referral of rehabilitation and AT services with primary health care

- To improve access to general rehabilitation and AT services at PHUs, MoHS will create a cadre of multi-purpose rehabilitation workers through a compressed curriculum with elements from both physical, and cognitive medical rehabilitation and AT services. Multipurpose Rehabilitation Workers (MRW) will be deployed at Community Health Centers (CHCs) and will work in close collaboration with facility in-charges for basic disability screening, providing

basic rehabilitation services, users' training on AT products and general maintenance. The MRW cadre will play a key role in ensuring promotive, preventive, basic care, and appropriate referrals for integrating rehabilitation and AT services in primary health care.

Activity 12: Ensure the inclusion of users and organizations of ATs as key resources

Include people who use Assistive Technology, their family members and organizations as a key resource and promote the use of technology such as virtual assistance, artificial intelligence and three-dimensional (3D) printing

Strategy 2b: Ensure integration of rehabilitation and AT workforce into MoHS public health cadre scheme of service and ensure that professionals are regulated, continuously improving their skills and are incentivized to provide quality services

Activity 13: Design and integrate Rehabilitation and AT Scheme of Service (SoS) with MoHS SoS to ensure absorption, retention and career growth of the rehabilitation and AT professionals in the country.

- In collaboration with Public Service Commission (PSC), Human Resource Management Office (HRMO) and DHRH, MoHS to ensure that a Scheme of Service (SoS) for all rehabilitation and AT professionals is developed with a focus on retention to keep the positions attractive for the staff. The Scheme of Service should clearly define career progression and benefits based on qualification, experience, and skill. The number of positions at various levels will be informed by rehabilitation professional (including AT) country's requirements as per WHO standards.

Activity 14: Develop an abridged course to promote greater understanding and skills development related to rehabilitation and AT services among clinicians including doctors and nurses

- MoHS will ensure that the basic level of understanding and skills about rehabilitation and AT services exists among all clinicians, including doctors and nurses. This will help ensuring provision of some basic level of services at health facilities even in the absence of a dedicated rehabilitation workforce. MoHS will develop a short sensitization and skill building course to train these professionals as a part of their in-service trainings. A dedicated pool of medical specialists will be trained annually by MoHS.

Activity 15: Enhance CHWs cadre's capacity with a short skill-based training and education on community-based rehabilitation and basic AT services by using the WHO training on assistive products (TAP)

- MoHS in collaboration with relevant partners will develop a skilled based training module to capacitate CHWs on community-based rehabilitation and basic AT services. This will ensure the availability of rehabilitation and AT services closest to the community and its integration with public health service delivery. CHWs can play a role in early screening, detection of disability, and identification of needs for early rehabilitation and AT services in the community.

Activity 16: Promote knowledge partnerships with regional and international technical institutions for on-site or online skill-based training and certification of the rehabilitation professionals.

- National Rehabilitation Centre in Collaboration with SLATRC will partner with regional and international technical institutions for both on-site and online skill-based training and certification of the rehabilitation and AT professionals in the system. This will enhance the capacity, and thereby the quality, of service delivery. The special considerations should be made in promoting and rewarding professionals for their continuous professional development and services in-country. NRC will develop a training management information system to keep a record of all training, and to provide fair and equal opportunity to all rehabilitation staff to enhance their skills.

Activity 17: Integrate the rehabilitation and AT workforce into national health professional regulations and credentialing of rehabilitation and AT professional's associations.

- MoHS will draft a bill related to the creation of a legally recognized Council of Rehabilitation Professionals (CRP) for parliamentary approval. The purpose of the Council will be to regulate the production, quality and training of the rehabilitation professionals in the country. MoHS will also support the development of national rehabilitation professional associations and practitioner networks that advance rehabilitation and AT services and promote opportunities for professional development.

Activity 18: Provide human capacity training for caregivers, parents, OPDs, PWDs, to ensure proper and inclusive use of assistive devices.

- In many cases, PWDs with severe functional difficulties are not able to operate ATPs on their own and may depend on their caregiver or parents to assist them. In other cases, the use of prosthesis may require training. It is therefore important that the capacity of those providing assistance to PWDs or PWD themselves are trained to acquire user knowledge of ATPs.

3.3 Service Delivery and AT Products

Policy Statement 3: Ensure universal and equitable access to person-centric rehabilitation services and self-sufficiency in continuous provision of service of affordable, safe and adapted AT products to persons with limited function/disabilities in order to achieve and sustain the optimum level of independence and functionality

Strategy 3a: Strengthen access by integrating multidisciplinary rehabilitation services into all levels of care, with special focus on early identification of development delays and referrals, strengthening regional rehabilitation centers, and linking these services with Community Based Rehabilitation

Activity 19: Sierra Leone Institute of 'Physiotherapy, and Assistive Technology in collaboration with National Rehabilitation Centre' and specialized care at Connaught Hospital, NRC and other government regional hospitals to provide tertiary level care for rehabilitation and AT services

- Directorate of Rehabilitation and AT under MoHS will set up functional linkages between the proposed Sierra Leone Institute of Rehabilitation and Assistive Technology, National Rehabilitation Centre and Connaught Hospital, regional government rehabilitation centers to provide comprehensive and complex rehabilitation and AT services to the patients for both OPD and IPD.

Activity 20: Increase the coverage of the service by establishing dedicated rehabilitation centers/units/wards/departments in hospitals across the country to deliver comprehensive and complex rehabilitation and AT services.

- MoHS will set up dedicated rehabilitation units in each hospital across the country to deliver comprehensive rehabilitation services with complex needs in both OPD and IPD settings. This should include undertaking a functioning assessment on admission, therapies, and discharge of all patients from IPD wards. The rehabilitation unit should be comprised of four sub-units – Physiotherapy, Prosthetics and Orthotic, Occupational Therapy and speech and language therapy Units. The units will have functional linkages with ENT, Ophthalmology, Orthopedics, Orientation and Mobility (O&M) and Trauma, and Neurology department to provide comprehensive rehabilitation and treatment.

Activity 21: Design and implement a 'National Rehabilitation and AT Program' (NRATP) with an aim to develop a package of priority rehabilitation and AT services at both primary and secondary level and integration within primary health care

- Directorate of Rehabilitation and Assistive Technology under MoHS will launch 'National Rehabilitation and AT Program' (NRATP) in the country. As a part of the program, a package of priority rehabilitation and AT services will be defined across various facilities (MCHP, CHP, CHC, Hospitals) to provide access to both primary and secondary level of services. The requirements related to staff, services, referrals, AT equipment, and standards at all levels will be clearly described, based on the population needs and level of care. Referral linkages with regional rehabilitation and AT centers will be established for continuum of care. SLATRC and NRC will provide technical support for decentralization of the rehabilitation and AT services under the program.

Activity 22: Ensure door-step delivery of rehabilitation services in the community, including rural and remote areas, through community outreach strategies and training of Community Health Workers (CHWs), OPDs, IPDs

- Under NRATP, NRC will train and mentor non-rehabilitation health personnel (undergraduate, postgraduate, in-service and non-health) on rehabilitation, particularly for early identification, assessment and referral of people who can benefit from rehabilitation, support and assistance services. CHW will be trained to strengthen community-based rehabilitation, alleviating stigma, providing education for the community on creating a positive attitude towards people with disabilities, basic screening and referral for rehabilitation and AT services. CHWs will be trained for supporting families and caregivers to improve the people-centeredness of rehabilitation services.

Activity 23: Assess the current standards of care in rehabilitation and AT services and develop 'Sierra Leone National Rehabilitation and AT Services Standard Guidelines' to improve the quality of rehabilitation services in the country.

- NRC in collaboration with SLATRC will set up a quality unit and undertake a holistic assessment of the current standard of care in rehabilitation and AT services in the country. This will lay a foundation for development of national standards for Rehabilitation and AT services. The standards will play a critical role in strengthening Rehabilitation Units at hospitals and improve quality of care at PHUs through gazing requirement on the resources and capacity building gaps. The unit will continue updating the document based on emerging technologies, and new practices in the rehabilitation and AT space. The standards will also be used for periodic assessment of the rehabilitation and AT services for continuous quality improvement in the public health facilities.

Activity 24: Expand the physical rehabilitation guidelines, standards, and protocols to include mental health-related rehabilitation services including health conditions such as delayed development milestones and others in connection with health emergencies (e.g., Covid19).

- NRC will expand the physical rehabilitation guidelines to include necessary standards and protocols for mental-health related services available across the continuum of care. The increased efforts will be made to establish linkages of NRATP with the child health program and school health program of the MoHS and Ministry of Education respectively for appropriate referral. Emphasis will be laid on early identification of the disability and AT device needs through screening of development milestones of new-born up to under 5 and school-going children. As per need, the program will also publish guidelines on the rehabilitation of traumatic injuries due to natural disaster and other health related emergencies.

Strategy 3b: Enable continuous supply of assistive technology devices by building in-country capacities to procure, produce, and maintain AT devices for daily living with increased focus on devices required for permanent disability as per population need and for education and elderly care

Activity 25: Develop a country-specific list of priority AT products based on the disability profile and evolving population need, with the support of the WHO list of priority assistive technology

- SL ATRC will provide a technical assistant to MoHS to either adopt or develop a list of priority AT products and integrate it with national essential list of equipment. The most prevalent permanent disabilities, devices required for access to education and the self-care needs of elderly populations in the country will form the basis for developing such list. The center will also undertake a detailed assessment on the in-country capacity to produce AT products required for both permanent and temporary disability to meet population needs. A detailed continuous assessment of in-country produced equipment with raw material required will be developed by the center to inform service delivery under NRATP and corresponding annual budget.

Activity 26: Develop AT device technical specification and collaborate with National Medical Supply Agency for centralized procurement of the quality AT products for the cost optimization and economy of scale

- SLATRC will develop standards and technical specifications to guide manufacturing and procurement of assistive products that are fit-for-purpose. After inclusion of AT devices into national list of essential equipment, NRC will collaborate with National Medical Supply Agency (NMSA) for bulk procurement of the AT devices based on the published standards to ensure quality and economy of the scale. SLATRC will also define the Terms of Reference (ToR) for NMSA when it comes to the procurement of AT devices.

Activity 27: Promote and increase the local manufacturing of AP with partners from other technical institutions, development partners, NGOs and countries to augment AT devices production and maintenance capacity and improve access through decentralized distribution of the AT devices.

- SLATRC will collaborate with other technical institutions, development partners, NGOs/INGOs to develop and augment in-country AT device production and maintenance capacity. Depending upon the complexity of the devices, the distribution of AT devices will be decentralized through DHMTs/Hospitals and PHUs to avoid unnecessary travel and financial hardships to the needy. The user's training and basic knowledge to family members for equipment maintenance will accompany the delivery of the AT devices.

Activity 28: Establish standards and regulatory mechanisms for quality AT products.

- Develop standards and regulatory mechanisms that ensure the production, procurement and provision of quality assistive products while enabling affordable solutions

3.4 Research and Information System

Information systems and management are essential for the successfully provision of AT products and services at community and district healthcare level. Adequate and reliable information from local, national and other sources on disability and rehabilitation products and services need to be accessed by healthcare service providers, agencies and disability institutions. Therefore, information systems will improve AT provision systems in terms of availability of AT products and services, types of AT provided, matching AT products and services with disability conditions, etc.

Policy Statement 4: Promote evidence driven policy development and decision making through research, and institutionalizing information system on rehabilitation and AT services in the country

Strategy 4a: Create information systems to regularly generate, collect and analyze information on the functional abilities of the population, and service utilization to inform the continuous reorganization and equitable distribution of rehabilitation and AT services based on changing needs of the population

Activity 29: MoHS, NCPD, OPDs, relevant MDAs and other partners in collaboration with MoSW and Statistics Sierra Leone to support the implementation of 'Model Disability Survey' to estimate the population needs of the rehabilitation and AT services

- MoHS will support the implementation of a 'Model Disability Survey' to understand the rehabilitation and AT service needs of the country. Such a survey can be executed either as a standalone or integrated with population and house-hold census/mid-term house-hold census in the country in collaboration with MoSW and Statistics Sierra Leone. Data collected through such surveys shall be used to shape the rehabilitation including AT polices and services to meet the evolving needs of the population.

Activity 30: Strengthen NRATP Management Information System and integrate it with existing District Health Management Information System Software (DHIS2) to generate data on rehabilitation services utilization and AP consumption at various level of care

- Under NRATP, the Directorate will build a National Rehabilitation and Assistive Technology Program Management Information System. The system will be integrated with existing DHIS2 system to allow regular data generation and analysis. The focus of the information system will be to collect data on the utilization of the rehabilitation and AT service at all level of care for regular program monitoring and evaluation.

Activity 31: Strengthen and expand the Disability Medical Board with a new ToR involving new PWDs composition within MoHS to guide the NCPD, MoSW and other MDAs on the IT based process, screening, evaluation and certification of the disability based on type and level of disability.

- MoHS will either expand the existing medical board with inclusion of specialists from ENT, Ophthalmology, Neurology, Orthopedics and rehabilitation professionals to constitute a disability-specific medical board. The medical board will provide necessary medical guidance to NCPD and MoSW on the process, screening, evaluation, and certification of disability based on type and level of disability. International best practices will be adopted to determine the disability objectively and help NCPD and MoSW to issue disability certificates accordingly. This objectivity in the certificates will aid NCPD and MoSW in prioritization and equitable distribution of disability benefits to those most in need. MoHS will setup an IT based platform to organize decentralized and facility-based screening and evaluation of the disability by the specialists for the purpose of transparency, and seamless collection and flow of the information exchange between all relevant stakeholders.

Activity 32: Build a unique ID based record system for permanently disabled persons to archive the utilization of rehabilitation and AT service for further research and ensure equitable distribution of AT devices

- MoHS in collaboration with MoSW, NCPD and other partners will build a unique ID based system/certification system using DHIS2 system for permanently disabled persons. The system will capture utilization of the rehabilitation and AT services by PWDs. The system will

help track the service provisions and avoid duplicating the provision of AT products to the PWDs. NGOs/INGOs interested in donating AT devices can avail such information from the portal to optimize the reach. The data can also be used for research purpose during pilot testing of the AT devices.

Activity 33: To establish a network on research and development on disability issues by relevant MDAs and partners

- MoHS in collaboration with other MDAs will setup a research and development network on disability issues to review and develop the latest evidenced-based information on disability issues. The network although led by the MoHS, due to its cross-cutting nature will incorporate other a broad-based membership.

Activity 34: Promote regional and international collaboration in research and innovation

- The AT programme will apply knowledge, scientific as well as traditional knowledge, to strengthen health outcomes through regional and international collaboration in research and innovation. The MoHS will continue to research and share knowledge and experience, build capacity and improve the delivery of health services including AT products and care.

- Activity 35: Measure assistive technology needs for PwDs through deployment of rATA and development of registry for amputations across the hospitalsThe rapid Assistive Technology Assessment (rATA) survey tool which was developed by the Global Cooperation on Assistive Technology (GATE) initiative in 2014 (GATE), with supported by WHO, is used by countries to identify need and unmet need for AT, barriers to accessing AT, and user satisfaction with AT. The AT programme will bring together the MoHS, MoSW and Statistics Sierra Leone (SSL) to promote the use of the rATA tool to assess and gather basic information on factors such as demographics; needs; demand and supply; user satisfaction; and recommendations (optional). This will better address the gap between health or disability as it relates to the need, use, supply and impact of AT in a population. A centralized registry will be established across the hospitals undertaking major surgeries for amputations, accidents and correction of deformities.

3.5 AT Financing

Rehabilitative and AT Health Financing is aimed to enhance the efficiency of resource utilization, improving the services quality and coverage of rehabilitative services. Lack of financial resources is one of the main obstacles that hinders people with disabilities from accessing the right rehabilitation service and AT products (WHO, 2005). According to existing physical rehabilitation centers assessment reports from WHO (2005), almost all Medical Rehabilitation Centers in Sierra Leone have financing problems that include; shortage of funds, poor financial management, absence of separate financing, lack of transparency in the allocated budget and big allocation budget gaps compared to the actual needs of the rehabilitation centers. Therefore, the AT Medical Rehabilitation Resource Mobilization, Financing Policy and Strategic Plan aim to improve the resource mobilization, minimize budget gaps, and ensure transparency, accessibility, equity, timely release of funds and sustainability of care.

Policy Statement 5: Improve AT and Medical Rehabilitation services to the population, especially persons with disabilities through increased provision and utilization of financial resources.

Strategy 5a: Improve financial allocation (improve AT and Medical rehabilitation) to enhance accessibility to the population, especially persons with disabilities.

Activity 36: Conduct a detailed assessment on the existing financing mechanisms, gaps, and various cost considerations to mobilize resources for NRATP

- Directorate of AT and Medical Rehabilitation will conduct a detailed assessment of the financing mechanism available to procure, produce and maintain the rehabilitation and AT services in the country. The major cost drivers will be identified to develop a cost plan to provide services under NRATP. The funding will be allocated to various elements of NRATP for increasing transparency, utilization and tracking of the progress in overall service delivery.

Activity 37: Develop a detailed strategic plan with clear activities and cost estimate for the overall development of medical rehabilitation and assistive technology systems in the country.

- Directorate will develop a comprehensive rehabilitation and AT strategic plan with clear activities, timelines, and cost estimates for 5 years. The document will be used by MoHS to prioritize activities, mobilize resources and guide investments for the development of rehabilitation and AT sector in the country. The defined activities can be included into MoHS annual work plan to earmark resources from the government as well as mobilizing resources from the partners, bilateral and multi-lateral agencies.

Activity 38: Identification of basic and priority rehabilitation and AT services for their inclusion into Essential Health Services (EHS) to mitigate financial hardships to access basic rehabilitation and AT services

- NRC in collaboration with SLARTC will identify list of basic rehabilitation and AT services for their inclusion into BPEHS. The Directorate will work closely with Directorate of Primary Health Care to ensure that BPEHS includes rehabilitation and AT services as well. This will eliminate financial barriers for PWDs to access basic services and improve universal access to rehabilitation and AT services.

Activity 39: Provision of access to AT products to be included into Sierra Leone Social Health Insurance (SLeSHI) scheme for priority products.

- MoHS will undertake efforts to include the provision of prioritized AT products into SLeSHI package to provide financial protection against the procurement of the high-cost prioritized devices. To begin with, AT products which cannot be manufactured indigenously and self-care products for elderly population can be included into the package.

Activity 40: Develop domestic resource mobilization strategies within MoHS to ensure sustained provision and distribution of AT and medical rehabilitation services to the population of Sierra Leone

- NRC will develop a domestic resource mobilization strategy with an aim to generate revenue through production of AT equipment, on the basis of a needs assessment, from other ministries and private sector. A user fee can be implemented for the use of AT devices procured from NRC/RRC for temporary disability. For high-cost equipment, the cost of AT devices can be subsidized from AT Funds available with NCPD. Such strategies will help MoHS to generate resources and sustain AT services.

4 Assistive Technology Policy and Strategy Implementation Framework

4.1 National Policy, Strategy and Planning Costing Tool

The activities relating to the strategies of the AT policy objectives will be implemented using a costing tool developed by CHAI Global and modified for the Sierra Leone context. The National Policy, Strategy or Planning Costing (NPSPC) Tool is an Excel-based, open-source tool suited for activity-based costing of national strategic plans. The tool also facilitates a transparent and accountable detailed activity-based budgeting process that shows how planned expenditure is aggregated and integrated into the Government of Sierra Leone (GoSL) AT and Rehabilitation program. Additionally, the tool can be used to perform quick calculations with all underlying details and assumptions, to establish the costs of individual activities which may be useful at various points during operational planning for programs.

Table 1 and 2 shows summary Tables in United States Dollar (USD) for three (3) main cost category defined. For example, (i) Professional Services Costs such as; Technical Assistance to develop AT standards or the cost to setup new AT rehabilitation centers, (ii) Training and Travel Related Costs require costs associated with visit to new National AT and Rehabilitation Centres or coordinating costs for the proposed National Disability Assistive Technology and Rehabilitation Technical Working Group meetings within the MoHS and (iii) Other Recurrent Cost mainly cover cost associated with running office costs.

Additionally, Table 1 and 2 also show the Cost by the five (5) Policy Objectives such as (i) Rehabilitation and AT Governance, (ii) Human Resources (iii) Services Delivery and AT Products (iv) Research and Information Systems and (v) AT Financing. The highest cost line from this second Table is the Research and Information Systems accounting for 723,500 USD funding requirement for the five years period. Within this policy objective, the creation of disability registration, assessment guidelines and certification accounts for the bulk of the funding requirement. This is followed by the provision of AT products and services at 644,850 USD funding requirement for the five-year period. It is worth noting the spread of the costs. Activity costs can be spread throughout the five-year period.

Similarly, Table 3 shows the Cost by Strategy between 2021 and 2025. There are 8 strategies related to the five policy objectives. Again, the strategic objective related to the creation of information systems bears the highest cost requirements for the entire period from 2021 to 2025.

	2021	2022	2023	2024	2025
Cost by Category (USD)					
Professional Service Costs	131,560	364,960	352,500	447,460	286,510
Training and Travel Related Costs	7,930	37,430	220,600	50,530	47,030
Other Recurrent Costs	53,300	47,300	136,900	79,950	123,400
Total	**192,790**	**449,690**	**710,000**	**577,940**	**456,940**
Cost by Objective (USD)					
Rehabilitation and AT Governance	61,890	68,790	114,600	36,690	62,340
Human Resource	15,900	76,900	123,200	42,900	92,800
Service Delivery and AT Products	16,500	119,000	178,700	230,850	99,800
Research and Information System	66,000	152,500	234,000	115,000	156,000
AT Financing	32,500	32,500	59,500	152,500	46,000

Table 1 and 2 - Cost by Category and Policy Objectives

	2021	2022	2023	2024	2025
Cost by Strategy (USD)					
Strategy1a - Create a Ministry of Health platform/mechanism	56,390	52,290	82,600	20,690	33,840
Strategy1b - GoSL and other stakeholders are committed to e	5,500	16,500	32,000	16,000	28,500
Strategy2a - Build indigenous capacity for the production of n	14,500	21,000	26,500	9,900	29,000
Strategy2b - Ensure integration of rehabilitation and AT workf	1,400	55,900	96,700	33,000	63,800
Strategy3a - Strengthen access by integrating multidisciplinary	15,000	95,000	118,700	179,750	28,300
Strategy3b - Enable continuous supply of assistive technology	1,500	24,000	60,000	51,100	71,500
Strategy4a - Create information systems to regularly generate	66,000	152,500	234,000	115,000	156,000
Strategy5a - Improve financial allocation (improve AT and Me	32,500	32,500	59,500	152,500	46,000

Table 3 – Cost by Strategy

Figure 3 explain the cost/budget for the National Policy in terms of cost by category and forecast for the five policy objectives. It is worth noting that professional service cost (Blue Bar) are the highest throughout the five years, with these costs evenly spread out; the lower cost in 2021, since this is the baseline year. Although, 2021 is coming to an end, costs have been allocated to reflect some of the background work that has already gone into preparing for a full AT Programme rollout.

Figure 3 - Graphs of the cost forecasts for Budget Category and Policy Objectives

Summarizing the total budget to implement a full AT Programme (Table 1,2) will require an investment of 2,387,360 USD (2.4 million USD) for the first 5 years (2021 to 2025). The GoSL call on development partners to support AT and rehabilitation programme, which is a key priority of the GoSL, as addressed in the nation's Mid-Term National Development Plan (MNDP, 2019 to 2023), which outlined actions to review, improve and develop policies that relate to the provision of ATs required by persons with disabilities. The GoSL also strategize to improve domestic resource mobilization.

4.2 Monitoring and Evaluation (M&E) Framework

Monitoring and Evaluation (M&E) is generally defined as a combination of data collection and analysis (monitoring) and assessing to what extent a program or intervention has, or has not, met its objectives (evaluation). Additionally, M&E is used to assess the performance of projects, institutions and programmes set up by governments, international organizations and NGOs. Its goal is to improve current and future management of outputs, outcomes and impact[2].

Currently, there is no national M&E system for rehabilitation and AT services in the country. Unlike other health services provision facilities in Sierra Leone, there is no standardized reporting, monitoring, and evaluation system in place for national rehabilitation centers in the country. The M&E framework developed here is shown in Table 4. The framework establishes indicators and regulatory frameworks which should be put in place as a precondition for sound rehabilitation and AT service delivery. The framework is critical in tracking progress and outcomes and is a responsive system which enable functional performance monitoring, reporting and evaluation as defined by MoHS.

The M&E framework will track on a regular basis (quarterly, half-yearly and annual) the 8 key AT strategic objectives during implementation of the policy to determine whether the policy objectives have achieved expected results. The indicators of success set for each policy objective can be used to help monitor and measure progress towards the achievement of the plan's goal.

While the MoHS will have ultimate responsibility for ensuring the implementation of this policy, each implementing institution (NRC, MoSW, NCPD, MBSSE, NCRA, NaCSA, etc) and partners shall clearly have defined roles in line with their mandates as indicated in the indicators framework. In doing so, it ensures the provision of high-quality, affordable AT products and services that meet population needs.

[2] https://www.sopact.com/monitoring-and-evaluation

INPUTS → OUTCOMES → OUTPUTS → INDICATORS

Policy Objectives	Strategies	Activities	Indicators	Data source [How will it be measured?]	Frequency [How often will it be measured?]	Responsible [Who will measure it?]	Assumptions	Reporting [Where will it be reported?]
Policy Objective 1: AT Governance. Conduct ecosystem for barrier free exchange of dialogue among stakeholders and government agencies for collective decision making and accountability	***Strategy 1a**: Creation of robust platforms for improve governance* ***Strategy 1b:** Expansion of partner network*	Inter-sectoral coordination meetings Develop rehabilitation and AT multi-sectoral action plan Provision of AT in disaster and conflict situations Creation of website & advocacy materials Establish a dedicated Directorates: Directorate of Rehabilitation and Assistive Technology and Sierra Leone Assistive Technology Resource	No. of meetings held in a year Multisectoral plan available? Website developed & No. advocacy embarked on DRAT setup and functional No. AT provided for Disaster?	Annual report of NRC Budget line specifying implementation Operational website online Surveys/questionnaires of beneficiaries	Quarterly Monthly Annualy	MoHS MoSW MBSSE NCPD NCRA SLUDI NaCSA	Availability of adequate coodination resources	NRC National Disability, Assistive Technology and Rehabilitation Technical Working Group (NDATR TWG)
Policy Objective 2: Human Resources. Achieve global standards on the coverage of rehabilitation per population by strengthening both pre-service and in-service capacity and systems	***Strategy 2a** : Build indigenous capacity to produce and retain workforce* ***Strategy 2b:** Integrity work force into public health*	Develop a Rehabilitation and AT human resource training and capacity building plan Sierra Leone Institute of Physiotherapy, and Assistive Technology Multipurpose Rehabilitation Worker (MRW) at Community	Directorate established % staff rehab professionals trained No. of new cadre established No. of AT TWG held Production of AT multisectoral plan	HRH report Surveys	Annual	MoHS NRC	Availability of adequate coodination resources	Professional bodies NRC
Policy Objective 3: Services and AT Products. Ensure universal and equitable access to person-centric rehabilitation services and self-sufficiency in continuous supply and management of AT products	***Strategy 3a** : Strengthen access by integrating services into public health delivery* ***Strategy 3b:** Develop in-country capacity to manage AT*	Connaught Hospital, NRC and other government regional hospitals to provide tertiary level care for rehabilitation and AT services Increase of AT service coverage	No. of new rehab centre established Improved service provision	Customer satisfaction surveys Follow up visits	Monthly	MoHS NRC MoSW NCPD	Willingness to collaborate Datasharing	MoHS NRC MoSW
Policy Objective 4: Research & Information System. Promote evidence driven policy development and decision making through rigorous research, surveys and institutionalizing robust information system	***Strategy 4a** : Create information systems to generate data on the functional abilities of the population, and service utilisation*	Develop a registraton and certification for PWDs Strengthen and expand the Disability Medical Board with a new ToR	No. of pwds receiving AT after registration and certified Medical board setup and function	Conduct 'Model Disability Survey'	Monthly Annually	MoHS, NCPD, OPDs, relevant MDAs	Willingness within the medical profession to setup special registration system Donor and GoSL funding available	NRC MoHS MoSW NCPD
Policy Objective 5: AT Financing. Ensure self-sufficiency in procurement and supply through increased provision of financial resources and by improving affordability, equity, and sustainability of care	***Strategy 5a** : Increased financial allocation to eliminate financial hardship and strategize domestic resource mobilitation*	Assessment of funding gaps and resource mobilisation Develop strategic plans, activities and cost estimates for implementation of AT Remodel Sierra Leone Social Health Insurance (SLeSHI) to	No. of funding opportunities established Percentage of matched funding for programme implementation SLeSHI is funding provision of AT	SLeSHI annual report Surveys	Annually	SLeSHI MoHS, NCPD, OPDs, relevant MDAs	Collaboration is essential to succeed	MoHS NRC MoSW MoF

Table 4: Monitoring & Evaluation Framework

5 References

AT2030 [https://at2030.org/]

Constitution of Sierra Leone. The 1991 Constitution of Sierra Leone
https://www.sierraleonetrc.org/downloads/legalresources/sl_constitution_1991.pdf

MoHS. Basic Package of Essential Health Services (BPEHS)

Sierra Leone 2015 Population and Housing Survey
https://www.statistics.sl/index.php/census/census-2015.html

The Persons with Disability Act 2011 [Accessed: 11 November 2021: http://www.sierra-leone.org/Laws/2011-03.pdf]

The Government of Sierra Leone's new Medium-term National Development Plan (MTNDP) 2019–2023 [Accessed 11 November 2021: http://moped.gov.sl/Development-Plan/MTNDP]

The Sierra Leone 2019: Country Capacity Assessment (CCA) Report 2019 [Unpublished]

The 2018 Astana Declaration
https://www.who.int/docs/default-source/primary-health/declaration/gcphc-declaration.pdf

United Nations. United Nations Conventions on the Rights of Persons with Disabilities. United Nations; 2007 [Google Scholar]

United Nations. United Nations SDGs - Sustainable Development Goals
[https://sdgs.un.org/goals]

World Health Organization. WHO global disability action plan 2014-2021: better health for all people with disability. Geneva. WHO (2015). [Google Scholar]
https://www.who.int/publications/i/item/who-global-disability-action-plan-2014-2021