THE REPUBLIC OF UGANDA

MINISTRY OF INFORMATION AND COMMUNICATIONS TECHNOLOGY

ICT FOR DISABILITY POLICY

SECOND DRAFT

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Contents

ABBREVIATIONS

AD	Audio Descriptions
DPOs	Disabled Peoples' Organizations
EPGs	Electronic Programming Guides
ICTs	Information and Communication Technologies
ITU	International Telecommunications Union
PDP	policy development process
PwDs	People with Disabilities
MDAs	Ministries, Departments and Agencies
MoICT and NG	Ministry of ICT and National Guidance
MoGLSD	Ministry of Gender, Labor and Social Development
OPM	Office of the Prime Minister
NITA-U	National Information Technology Authority-Uganda
QoS	Quality of Service
UCC	Uganda Communications Commission
UN	United Nations
UNESCO	United Nations Education and Scientific Children's Organization
UNCRPD	UN Convention on the Rights of Persons with Disabilities
WSIS	World Summit on Information Society

1. INTRODUCTION

About 15% of the world's population lives with some form of disability and 80% of these live in Africa. According to the Uganda Population and Housing Census (2014), one in every 25 persons has a disability, hence making disability a national concern. The Government of the Republic of Uganda is obligated to promote and protect the rights of all people including persons with disabilities (PWDs). The Constitution of Uganda also stipulates the need to empower and provide equal opportunities to all citizens including PWDs.

Hitherto, the Government of Uganda (GoU) has concentrated on providing rehabilitation services for PWDs mainly through the provision of health services and special needs education among other affirmative actions. The Information and Communications Technology (ICT) for Disability Policy seeks to augment these efforts by providing proactive interventions through the use of ICTs that are aimed at improving the quality of life of PWDs. ICTs play a great role in improving the livelihood of PWDs by enabling them to have equitable access to information and knowledge thus enabling them to live more-or less independently and also reducing on their living costs such as fees for hiring guides and sighted readers.

Given this background, the Ministry of ICT and National Guidance (MoICT & NG) undertook to develop the ICT for Disabilities policy to guide the development and supply of accessible ICTs in Uganda. Without such a policy, ICT based interventions for PWD would be limited to ad-hoc, market-led and small-scale private initiatives.

Considering that disability is a cross cutting issue in the Public Sector, Business Sector, Civil Society, and Development Partners, this policy shall be used as a planning framework to guide resource allocation and implementation of accessible ICTs in these sectors.

1.1 Defining ICTs and Disability for Uganda

This Policy adopts the UNESCO definition of disability which concurs with the definition from the World Health Organization:

"Disabilities is an umbrella term, covering impairments, activity limitations and participation restrictions. An impairment is a problem in body function or structure; an activity limitation is a difficulty encountered by an individual in executing a task or action; while a participation restriction is a problem experienced by an individual in involvement in life situations. Thus disability is a complex phenomenon, reflecting an interaction between features of a person's body and features of the society in which he or she lives".

In accordance with the UN Convention on Rights of People with Disabilities (UNCRPD, 2006), this Policy considers PWDs to include people who have long-term physical, mental, intellectual or sensory impairments which, in interaction with various barriers, may hinder their full and effective participation on an equal basis with others in society.

According to article 2 of the UNCRPD "Communication" includes languages, display of text, Braille, tactile communication, large print, accessible multimedia as well as written, audio, plain-language, human-reader and augmentative and alternative modes, means and formats of communication, including accessible ICT;

Given the convergence of technologies, ICTs where accessibility for PWDs is crucial include computers, mobile phones, the Internet, Televisions, Automatic Teller Machines among others including computer enabled systems such as lifts, cameras etc. Considering the emerging technologies such as the Internet of things (IoT) and Artificial Intelligence, applications of ICTs for PWDs will be enormous.

Current assistive technologies include i) speech to text applications; ii) Speech synthesizers; iii) Text to gesture and gesture to text applications; iv) Real time transcription of text; v) Assistive devices such as digitized walking aids; vi) Large print screens/magnifiers; vii) Braille printers; viii) Captioned versions of videos and films among others.

1.2. Rationale for developing the Policy

The Government of Uganda encourages the uptake and improved utilization of ICTs in order to ensure universal access to services and opportunities. This Policy, therefore, is an intervention by the Ministry of ICT and NG to close gaps in the use of ICTs by PWDs. The Policy proposes comprehensive sector-wide interventions. It will therefore serve as a basis for the ICT sector in support of the Ministry's continuing efforts, in fulfilling its mandate, to improve the lives of all Ugandans by facilitating and promoting the use of ICTs.

1.3 Policy Development Process

The PDP was consultative and participatory involving a multitude of stakeholders. Extensive consultations were held with Government Ministries, Departments and Agencies (MDAs, Local Governments (LGs), Private Sector, Civil Society Organizations, Development Partners, Communities, Disabled Peoples' Organizations (DPOs) and PWDs.

In particular, extensive consultations were held with individual PWDs and their umbrella organizations in order to obtain their input based on first-hand experience.

According to the ITU (accessibility policy report, 2014), it is the role of policy-makers, regulators, civil society and industry to identify and define solutions specifically tailored to the country's needs, while leveraging to the greatest possible extent international standards and global economies of scale to lower costs and to promote accessible ICTs.

2. SITUATIONAL ANALYSIS

The situational analysis looked at the current practices in the ICT sub-sectors, namely mobile communications, ICT devices, public communications, television/video programming, the Internet and public procurement in relation to ICTs and Disability. In accordance with the ITU Model ICT Accessibility Policy (2014), the following areas were analyzed:

i.   The extent to which the existing policies, laws and regulations provide for accessible ICTs and Identifying new laws and policies that need to be put in place;

ii. Assessing key interventions that are currently in place for promoting ICT accessibility;

iii. Gauging the existing level of awareness among stakeholders with respect to ICT accessibility.

iv. Identifying existing consensus building and inclusive policy-making mechanisms such as established specialized fora and committees, inclusive regulation processes and public consultation processes.

v.   Identifying collaborative efforts for the promotion and uptake of accessible ICTs.

vi. Identifying existing targets, monitoring and evaluation reports on the current implementation of accessible ICTs.

vii. Identifying the existing training programs, capacity building and educational programmes with provisions for promoting ICTs for Disability.

The Situational Analysis is structured around six (6) themes, each of which covers the basic tools that policy-makers and regulators need to consider in order to improve ICT accessibility. These themes are:

i)   **ICT accessibility legal, policy and regulatory framework.** This thematic areas looks at existing key policy and regulatory provisions for mainstreaming ICT accessibility;

ii) **ICT accessibility framework on public access.** This thematic area covers current licensing conditions, guidelines and public access accessibility guidelines issued by the communication's and IT sector regulators;

iii) **Mobile communications accessibility policy framework.** This thematic area assesses whether the existing policy pronouncements with regard to ICT for PWDs are supported by a standard code of conduct;

iv) **Television/video programming accessibility policy framework.** This thematic area investigates whether the current broadcasting policy is accompanied with accessibility regulations as per best international practice for television/video programming;

v) **Web accessibility policy framework.** This thematic area seeks to establish whether there is a specific policy for accessible websites and other web applications;

vi) **Accessible ICT public procurement policy framework.** This thematic area seeks to establish whether Uganda has the relevant policy and regulatory procurement pronouncements for accessible ICTs in place.

Notably, the other areas of ICT accessibility and assistive technologies such as those specific to education, employment, rehabilitation, local government ordinances, voting, financial services or transportation are beyond the scope of this policy.

2.1 ICT accessibility legal, policy and regulatory framework

The situational analysis under this theme considered the existing key policy and regulatory provisions for mainstreaming ICT accessibility and attempts were made to identify gaps therein.

2.1.1 International Context

The United Nations Convention on the Rights of PWDs (UNCRPD, 2007), (hereinafter, referred to as the Convention), was the first international treaty and instrument on disability. The UNCRD mandates Governments with the responsibility of ensuring that the rights of PWDs are recognized and respected. Articles 9 and 21 of the Convention outline the need for a more accessible ICT environment that caters for the needs of PWDs by employing methods and formats accessible to them. Further, in the preamble of the Convention it is stated that mainstreaming disability issues in all legal frameworks is "an integral part of relevant strategies of sustainable development". This rationale cuts across all the themes.

2.1.2 Local Context

2.1.2.1 National ICT Policy (2014-2019)

The policy pronouncements on PWDs feature under subsection 4.6.1.1 on ***Mainstreaming Women, Youth and PWDs (PWDs) Issues***. It goes as follows:

The successful penetration of ICTs within the existing social and economic structures depends on its people. However, women, youth and PWDs are at times marginalized in most activities but constitute a very important segment of society. Therefore, there is need to address them as special groups in society that can positively contribute to the growth of ICTs as well as the use of ICTs as empowerment tools in their daily activities.

To this end, the following strategies are lined up:
a) Promote ICT as an alternative career for women, youth and PWDs in the informal and formal educational system;
b) Encourage creativity and innovation around ICTs among women, youth and PWDs leading to entrepreneurship development;
c) Enable full and equal participation of women, youth and PWDs in creating the Information society;

d) Implement special ICT training programs for women, youth and PWDs;

e) Facilitate and encourage the development of electronic networks and systems for associations and organizations engaged in the advancement of women, youth and PWDs issues in the country; and

f) Implement ICT programmes/projects focusing on combating HIV/AIDS among women, youth and PWDs.

From these statements, it is evident that accessibility was not captured at all.

2.1.2.2 Communications Act 2013

The Communications Act has been amended to address issues such as convergence and the introduction of broadband. However, key amendments to promote accessibility were not incorporated into the Act.

Recommendations:

In line with the International Convention, it is imperative that the Ministry of ICT and Uganda Communications Commission (UCC) include policy and legislative proposals relating to PWDs in the regulation of the telecom and broadcasting subsectors.

The goals of the policy legal and regulatory approaches are to create a legal and regulatory framework that promotes ICT accessibility by taking the following steps:

i. revising existing ICT policies, legislation and regulations to promote ICT accessibility;

ii. consulting with PWDs on the development of such revised ICT policies, legislation and regulations, including by establishing a committee on ICT accessibility;

iii. making PWDs and organizations of PWDs aware of revised ICT policies, legislation and regulations;

iv. adopting ICT accessibility technical and quality of service (QoS) Standards;

v. adding and revising key ICT legislation definitions to promote ICT accessibility;

vi. amending the universal access/service legal and regulatory framework to include ICT *accessibility* as an explicit goal of universal access/service and the universal access/service fund;

vii. ensuring that QoS requirements take into account the specific needs of PWDs and set quality of service standards for accessible services;

viii. revising legal frameworks for emergency communications to ensure emergency services are accessible for PWDs;

ix. establishing clear targets and report annually on their implementation; and

x. Amending disability legislation to refer to ICT accessibility;

xi. Making PWDs and organizations of PWDs aware of revised ICT polices, legislation and regulations;

xii. Adopting ICT accessibility technical and quality of service (QoS) standards;

xiii. Adding ICT accessibility technical definitions to promote ICT accessibility;

xiv. Amending Rural Communications Development Fund (RCDF) legal and regulatory framework to include accessibility as an explicit goal of Universal Access;

xv. Ensuring that QoS requirements take into consideration the specific needs of PWDs and set QoS standards for accessible services;

xvi. Revising legal framework for emergency communications to ensure emergency services are accessible to PWDs;

xvii. Establishing clear targets and reporting annually on their implementation;

xviii. Amending disability legislation to refer to ICT accessibility.

2.1.2.3 The NITA-U Act

The NITA act (2009) provides for the establishment of the National IT Authority – Uganda (NITA-U) and to provide for its objectives, functions, composition, management and finances and other related matters.

One of the objects of the Authority in section 4, sub-section (f) is to promote access to and utilization of Information Technology by the special interest groups.

2.2.2.5 The Equal Opportunities Act;

The Equal Opportunity Act, 2006 prohibits discrimination of persons in employment based on disability.

2.2.2.6 The Employment Act;

The Employment Act (No. 6), 2006, prohibits discrimination of persons in employment based on disability.

2.2.2.7 The National PWDs Policy;

National Policy on Disabilities, 2006, provides a human rights-based framework for responding to the needs of persons with disabilities.

2.2 ICT accessibility framework on public access

This theme covers the current license conditions, guidelines and implementation of an ICT public accessibility checklist. The situational analysis study looked at communications services and ICT facilities to assess if they are accessible to PWDs. The areas studied included communication and service delivery in the following sectors places of work, universities, broadcasting and banking.

Recommendations:

Following the findings where it was noted that public accessibility standards are not strictly enforced. It is recommended that public accessibility standards e.g. in ATMs, internet cafes, Community Information Centers etc. should be strict enforced by the regulators.

2.3 Mobile Communications Accessibility Policy Framework

This theme assesses whether the existing policy pronouncements with regard to ICTs for PWDs are supported by a model code of conduct.

Currently, there is no mobile communications accessibility policy framework in Uganda.

There is need to develop this policy by all stakeholders, namely, Ministry of ICT in collaboration with Ministry of Gender, UCC, NITA-U and the other stakeholders active in ICTs for disability issues, including Civil Society, organizations of PWDs, and legislators. This Policy should promote mobile communications accessibility and include a supporting mobile communications industry code of conduct and regulations.

2.4 Television/video programming accessibility policy framework

This theme investigates whether the current broadcasting policy is accompanied with accessibility regulations as per best international practice for television/video programming.

Currently, Uganda does not have in place a television/video programming accessibility policy framework.

There is need to developed a broadcasting accessibility policy framework that addresses disability issues. All stakeholders should be involved in the policy development process. The focus should cover the content, presentation and the devices.

The policy should promote television/video programming accessibility for PWDs by taking the following steps:

    i.   Adopting a television/video programming accessibility policy, either

as a stand-alone document or integrated into an existing policy;

ii. Consulting with PWDs on the development of a television/video programming accessibility policy;

iii. Making PWDs and organizations of PWDs aware of this policy and television/video programming access services;

iv. Licensed service providers delivering access services such as audio description, audio subtitles, closed captions and signing;

v. Ensuring that electronic programming guides (EPGs) indicate, using internationally recognized access service icons such as "CC" for closed captions and "AD" for audio description, video programmes that offer access services;

vi. Establishing targets and reporting requirements for delivery of access services by licensed service providers, giving priority to certain types of programmes such as news programmes;

vii. Licensed service providers encouraging content creators to deliver programmes with access services;

viii. Licensed service providers ensuring that emergency information and public safety announcements are transmitted using access services;

ix. Adopting technical standards for interoperable television/video programming services to enable users to receive, decode and display access services;

x. Adopting quality of service standards for access services;

xi. Training customer service staff on how to serve customers with disabilities, including explaining how they can find information about access services on EPGs as well as how to use and customize available access services, and by designating a single point of contact for information and complaints about access services;

xii. Providing adequate funding to public broadcasters to enable them to provide accessible television/video programming; and

xiii. Promoting fair and equitable representation of PWDs in video programmes.

2.5 Web accessibility policy framework

The situational analysis under this theme sought to establish whether there is a specific policy for web accessibility.

Currently, Uganda does not have in place a specific web accessibility policy for PWDs. However, there are Guidelines for the Development and Management of Government Websites that were developed by NITA-U that have broad provisions to guide MDAs in making websites accessible to specialized audiences, PWDs, those without access to advanced technologies, and those with limited English language proficiency and ICT skills.

There is need to put in place a policy to ensure all online government information and services (including, webpages, website applications and websites) are accessible to PWDs. This includes external (public-facing or private) and internal (closed community) sites.

The goal of web accessibility policy should be to remove barriers PWDs face in using websites. For example, people who are blind or with low vision require websites that are compatible with screen readers that read text aloud; provide text alternatives for images which describe images; allow for resizing of text, images and page layouts and provide alternative web navigation aids. People who are deaf or hard of hearing will require captions for any content that is spoken, including videos, media players and web applications (apps). People with mobility disabilities may require additional time to complete tasks on a website and streamlined and keyboard-only compatible navigation mechanisms and page functions allowing use of alternative input devices.

The goal of the policy should also be to promote government web accessibility for PWDs by taking the following steps:
 i.   Adopting a web accessibility policy, either as a stand-alone document

or integrated into an existing policy;

ii. Consulting with PWDs on the development of a web accessibility policy;

iii. Making PWDs and organizations of PWDs aware of this policy and accessible government websites;

iv. Identification of the responsible authority who will monitor and ensure implementation of this web accessibility policy;

v. Ensuring government websites comply with international web accessibility standards;

vi. Identifying all government websites and assessing all websites covered by the policy;

vii. Government agencies updating their procurement policies to ensure all website development service contracts require accessible websites;

viii. Providing training to web developers on web accessibility;

ix. Providing guidance on accessibility testing tools and procedures;

x. Making government websites accessible for persons with different kinds of disabilities;

xi. Monitoring and publishing reports on progress achieved in government website accessibility

xii. Encouraging private entities that offer website services, applications, and content to the public to take into account on a voluntary basis all aspects of accessibility for PWDs; and

xiii. Providing guidance and incentives for education institutions and professional societies to develop courses for computer science students and information technology professionals about web accessibility.

Because of the rapid advances in technological developments, we shall adopt processes to conduct periodic reviews of the policy once passed, to best harness these technological opportunities.

2.6 Accessible ICT public procurement policy framework

This theme investigates whether existing PPDA Act has provisions to cater for PWDs.

This Policy has already been drafted and is being fast tracked. It will form part of these other polices once approved so that Uganda has in place a comprehensive set of polices to cater for all themes of the ICT Accessibility for PWDs that rhyme with International best practices.

2.7 Current barriers to access of ICTs by PWDs

Some of the current barriers to the uptake and availability of ICTs for PWDs include:

a. An uneven landscape of advanced ICT infrastructure;

b. Varying rates of implementation of the National ICT policies is;

c. The costs of establishing ICT infrastructure that relies on hardware and software imported from high income countries;

d. The disparity in capacity between rural and urban areas to fully exploit ICTs;

e. The unavailability of most software in local languages;

f. Low levels of ICT and disabilities literacy among the academia and other key stakeholders;

g. Low levels of knowledge on accessible among the policy makers, politicians, etc. and;

h. High cost of assistive technologies including the taxes

3 GUIDING PRINCIPLES, VISION, MISSION AND OBJECTIVES

The principles for developing this Policy are based on the UN Convention framework provided for ICTs to access information and knowledge for PWDS.

3.1 Guiding Principles

3.1.1 The Principle of Universality

The Principle of Universality covers the accessibility and design of ICTs and their contents such that they can be used by all persons including the PWDs. It is sometimes also known as the principal of inclusive design of ICT services and facilities.

3.1.2 Principle of Affordability

This principle concerns the cost of ICTs and Accessible Technologies.

3.1.3 Principle of Availability

This principle addresses the distribution of ICTs and Accessible Technologies, competencies and content;

3.1.4 Equal participation and Self-representation

This principle concerns the inane human right of equal participation and equal representation that should be enjoyed by all human beings.

3.2 Vision

Uganda as a leader in the development and use of ICTs for socio-economic development of all.

3.3 Mission

Building a better life for all through an enabling ICT environment.

3.4 Objectives

The main objective of this Policy is to use ICTs as a measure for reducing the marginalization of PWDs and for creating equal opportunities for them.

3.5 Specific Objectives

The ICTs and Disability Policy aims at:

a. promoting action-oriented partnerships among various public and private stakeholders;

b. creating awareness on the application of ICTs to improve the livelihood of PWDs;

c. Provide drivers and incentives through regulation and enforcement;

d. Plan for capacity building.

4. PRIORITY AREAS

Following is a presentation of the key priority areas that this Policy focuses on.

4.1   Improving Access to ICTs by PWDs

The Broadcasting sub-sector in Uganda has embarked on implementing the Annual to Digital Migration (ADM). One critical aspect of this migration are the opportunities digital broadcasting offers in the form of improved access to information by PWDs. Other accessible areas to information by PWDs include e-publishing, accessible Telecommunications equipment and services, accessible web technologies among others.

4.2 Awareness Raising and Sensitization

i.   conducting quarterly and annual sector-specific awareness campaigns and sensitization programmes aimed at internal staff members and those at the MDAs;

ii. encouraging and engaging the ICT sector to develop its own awareness campaigns

iii. and sensitization programmes, products and services that benefit persons with disabilities;

4.3 Mainstreaming ICTs and Disability

As a lead Ministry in the development of the ICT and Disability Policy the MoICT has to ensure that accessible ICTs are available and that they are deployed in the MDAs.

Accordingly, the Ministry will facilitate a process for reviewing policies and aligning them with the requirements of PWDs.

4.4 Skills Development

One of the critical areas for the success of this Policy is skills development and acquisition.

4.5 Employment and Human Resources

Both the Equal Opportunity Act (2006) and the Employment Act (2006) prohibit discrimination of persons in employment based on disability.

4.6 Economic Empowerment

It is common knowledge that PWDs are among those heavily affected by poverty. Poverty coupled with a lack of proper jobs among other things, relegates such groups to dependence on social grants and handouts. MDAs will be encouraged to consider PWDs and their companies when inviting preferential tenders for services that concern them such as carrying out ICTs and disability awareness campaigns, Braille services among others.

4.7 Disability Mainstreaming at International Forums and Programmes

The MoICT will prioritize participation in international and regional engagements that focus on ICTs and Disability in fora that include: the International Telecommunications Union (ITU) and its structures including the regional body the African Telecommunications Union (ATU), the Universal Postal Union (UPU) and the regional institution for Africa the Pan-African Postal Administration Union (PAPU) and other similar institutions under the United Nations including the United Nations Economic Commission for Africa (UNECA). All these institutions provide opportunities in the lives of people with disabilities. As a new, evolving issue, the disability dimension is overlooked in most of their agendas and programmes.

The Ministry will seek to influence the mainstreaming of ICTs and disability in all multilateral and bilateral forums and agreements to ensure that the core business of these institutions is disability inclusive. Furthermore, it is envisaged that, in order to promote the principle of self-representation in these activities, the Policy will ensure that persons with disabilities attend and

participate in such forums to gain exposure and to promote an understanding of this sector and its challenges. Such participation will allow the ICT sector to gain insight into the needs of persons with disabilities and to incorporate their needs in the design of new products, strategies and services, rendering them accessible to and user-friendly for all. The Policy will also facilitate a process on implementation of the various resolutions passed by the ITU and the other UN bodies related to Disability Mainstreaming and ICTs.

4.8 Accessible ICT Infrastructure

Improved access to information for persons with various types of disabilities via the broadcasting services by introducing minimum access standards in the following areas:

i. Accessible broadcasting services in accordance with the Digital Migration Policy;
ii. Radio programming;
iii. Telecommunications, facilities and services;
iv. Internet services
v. New and existing products and services
vi. Postal services for the blind and partially sighted
vii. All national DPOs are connected to the Internet (a website for the disability sector has been developed and handed over).

5. POLICY STATEMENTS

5.1 Publication of Information

Entities involved in publishing information shall ensure that all public information and documents are easily available in accessible formats. This should include formats accessible for mobile phones; text formats compatible with screen readers and screen magnifiers, and daisy content for loading on e-book readers.

5.2 Regulation of the ICT Sector

5.2.1 Supportive Licensing

Include accessible service delivery as part of the terms of operators' license agreements or introduce other measures to ensure that affordable and accessible ICTs (computers, mobile phones and their accessories) are provided to PWVDs.

5.2.2 Standardization of ICT equipment for PWDs

Identify and adopt standards on accessibility of ICT devices and services that have been developed by international standards bodies such as ITU, ISO and W3C. These standards should be adopted into operational guidelines such as the Websites development guidelines and the e-publishing guidelines.

5.2.3 Universal Service Fund

In a bid to bring ICTs to the under-served communities, it is vital for certain institutions, schools and NGOs with a disability bias to be identified so that financial and technical support is channeled to them to offer PWVDs with digital technology facilities.

5.3 Social Support

A deliberate effort to implement social support as part of the service rendered by helpdesks and after-sale services relating to ICTs should be made by service providers. This will help people that require emotional support on top of technical assistance to be brought into the digital world.

Make available funding from the universal service fund to ensure PWDs obtain accessible Internet and mobile phone services. This can entail subsidizing the cost of mobile phone handsets, special monthly service packages and provision of assistive technologies.

5.4 Public Procurement

Agencies in charge of public procurement, such as public procurement and disposal of Assets (PPDA) authority and consumer protection organizations should include accessibility of ICTs and related services as a condition for public procurement.

5.5 Availability of Accessible ICTs

The Government of Uganda should set aside funds for development of low cost assistive technologies for computers and mobile phones. Efforts should be made to ensure these are also adapted to some dominant local languages.

ICT firms should be encouraged to offer specialized services for PWDs alongside their usual ICT-related work. For instance, a seller of mobile phones and/or computers could be facilitated with the right knowledge to become a vender of related assistive technologies for PWDs. In addition specialized companies that deal only in ICTs for PWDs should also be attracted to set up operations in the country.

Promote website accessibility within the ICT industry and ensure that all government websites are accessible to persons with visual disabilities.

6. STAKEHOLDER INSTITUTIONAL FRAMEWORK

There are various government institutions that have mandates over various aspects of ICTs/Disability policy and regulation. These include MDAs such as Ministry of ICT; Ministry of Gender, Labor and Social Development; Ministry of Education, Science, Technology and Sports; Uganda Communications Commission (UCC); and National Information Technology Authority – Uganda (NITA-U).

All entities will develop their own budgets for the communication and implementation of the ICT and disability mainstreaming interventions. Following is a presentation of the roles of the key stakeholders.

6.1 Ministry of ICT

i. Create awareness and advocacy for ICTs for PWDs;
ii. Build capacity in MDAs implementing accessible ICTs;
iii. Establish ICTs and disability focal points in each MDA;
iv. Conduct regular review exercises to monitor and evaluate implementation progress;
v. Develop and publish a directory of e-services and projects for PWDs and their organizations in collaboration with other MDAs;
vi. Development and amendment existing ICT policies to incorporate disability provisions;
vii. Support local ICT firms that deal in ICT products and services for PWDs to obtain preferential treatment e.g. in procurement and taxation matters.

6.2 Ministry of Gender, Labor and Social Development (MoGLSD)

i. Set up a web portal that can offer specialized services to PWDs around the country. Some of the pertinent services could include collection of a host of reading materials for PWDs, guidance to where newly blinded people can get counseling and retraining in mobility orientation; information about schools that offer quality education for children with PWDs;
ii. Provide technical guidance on appropriate ICTs for the various sub-categories of PWDs.
iii. Policy to increase disability awareness, policies, standards, guidelines, strategies and action plans in accessible formats.);

6.3 Ministry of Education and Sports (MoES)

Policy mandating schools and colleges to have computer terminals accessible to students with disabilities.

6.4 Uganda Communications Commission (UCC)

i. Amending the RCDF legal and regulatory framework to include accessibility as an explicit goal of Universal Access;

ii. Ensuring that quality of service (QoS) requirements take into consideration the specific needs of PWDs and set QoS standards for accessible services;

iii. Revising legal framework for emergency communications to ensure emergency services are accessible to PWDs;

iv. Establishing clear targets on ICTs and disability issues in the communication sector and reporting annually on their implementation;

v. Amending disability legislation to refer to ICT accessibility;

vi. Adopting a television/video programming accessibility policy, either as a stand-alone document or integrated into an existing policy;

vii. Consulting with PWDs on the development of a television/video programming accessibility policy;

viii. Making PWDs and organizations of PWDs aware of this policy and television/video programming access services;

ix. Licensed service providers delivering access services such as audio description, audio subtitles, closed captions and signing;

x. Ensuring that electronic programming guides (EPGs) indicate, using internationally recognized access service icons such as "CC" for closed captions and "AD" for audio description, video programmes that offer access services;

xi. Establishing targets and reporting requirements for delivery of accessible services by licensed service providers, giving priority to certain types of programmes such as news programmes;

xii. Licensed service providers encouraging content creators to deliver programmes with accessible services;

xiii. Licensed service providers ensuring that emergency information and public safety announcements are transmitted using access services;

xiv. Adopting technical standards for interoperable television/video programming services to enable users to receive, decode and display access services;

xv. Training customer service staff on how to serve customers with disabilities, including explaining how they can find information about access services on EPGs as well as how to use and customize available access services, and by designating a single point of contact for information and complaints about access services;

xvi. Providing adequate funding to public broadcasters to enable them to provide accessible television/video programming; and

xvii. Promoting fair and equitable representation of PWDs in video programmes

6.5 National IT Authority – Uganda

i. Promote improved access to information by PWDs by introducing minimum access standards in information systems, Internet services and web applications;

ii. To develop accessible IT hardware standards and guidelines;

iii. To develop IT accessibility standards;

6.6 The Role of Other MDAs

All MDAs should put in place individual strategic ICT and Disability frameworks to promote awareness and to support the availability of accessible ICTs in their own environments.

They would need to develop their own plans that set specific standards and criteria to ensure that PWDs can access their ICT based services and goods.

In particular, MDAs will be expected to play a critical role in implementing this Policy. In addition they will be expected to develop their own individual strategies and implementation plans.

The functions of the individual MDA's in implementing this Policy will include:

i.   Develop Institutional ICTs and Disability policies and strategies;
ii. Set up institutional arrangements for implementing the ICTs and Disability policy actions such as designating ICTs and Disability focal Persons;
iii. Ensure that accessible tools are available for use by PWDs;
iv. Ensure that the developed e-government systems are accessible by PWDs; and
v.   Allocate financial and other resources for the implementation of accessible ICTs;

6.7 The Role of the Private Sector
The private sector players should provide support towards accessible and supportive ICT amongst others. The private sector should:

i.   Provide logistical support to promote access to higher and further education by PWDs within the ICT field;
ii. Provide accessible ICTs for use by PWDs at the work place;
iii. Support ICTs and disability development programmes in rural and disadvantaged communities;
iv. Ensuring the supply of accessible ICTs on the market;.

6.8 The Role of Development Partners
The role of development partners will include:

i.   Support SMEs that deal in ICTs and Disability products/services to access startup capital or funds for expanding their businesses; Support to entrepreneurship development will not only contribute positively to young PWDs participating in the economy but it contribute to employment and jobs creation.

ii. Support training institutions to design and deploy curricula that enables the ICT graduates to produces accessible and supportive ICT products.

iii. Provide support to this Policy by offering training opportunities through forums, conferences, exchange programmes and other development programmes that individuals and umbrella Organizations of PWDs can benefit from.

7. COORDINATION

Implementation of this Policy requires the creation of structures with clear mandates and responsibilities to support and augment the work of the Disability Directorate at the MoGLSD. The following institutional arrangements will be made in a bid to build institutional capacity so that policies that benefit PWDs can be effectively implemented:

7.1 National ICTs and Disability Committee

There is need to establish a focal oversight function for the delivery of the ICTs and Disability Policy. A National ICTs and Disability Committee comprised of members from key stakeholders that will include MoICT, MoGLSD, MoES, MoFPED and OPM will be responsible for overseeing and coordinating the implementation of this Policy. This Committee will report to the Permanent Secretary, Minister of ICT.

7.2 ICTs and Disability Focal Points in MDAs

In each MDA a Senior Officer will be identified and designated to coordinate all ICTs and Disability issues in that MDA. At the Local Governments, this function will be carried out by the District Rehabilitation Officers.

8. MONITORING AND EVALUATION

The MoICT and the MoGLSD will develop the relevant M & E indicators, standards and criteria in order to effectively evaluate the work done by the various stakeholders. The process must be in consultation with all

stakeholders; should not be prescriptive but rather adopt a partnership approach.

The Monitoring and Evaluation of ICTs/Disability programmes could also be incorporated into the Performance Management System of MDAs with key performance indicators (KPIs) clearly defined.

To ensure that implementation is monitored and that progress is made in achieving targets, the ICTs and Disability Policy outlines the following KPIs:

8.1 ICT Infrastructure Accessibility

This KPI will measure the number of accessible ICT infrastructure. Key parameters for measurement will include:

    i. The number of accessible broadcasting;
    ii. The number of accessible ICTs facilities;
    iii. Telecommunications, facilities and services;
    iv. Internet services
    v. Postal services for the blind and partially sighted
    vi. Number of accessible banking services e.g. Automatic Teller Machines (ATMs)

8.2 Uptake and utilization of ICTs

This KPI will measure the uptake and utilization of ICTs by PWDs. The parameters will include:

    i. Accessible devices imported into the country.

8.3 Accessible ICT Products and Services

This KPI will measure the number of accessible products and services. The measurement parameters will include:

    i. Number of e-government systems certified as accessible;

ii. Level of accessibility of e-government systems.

8.4 Affordability of accessible ICTs

This KPI will measure the affordability of accessible devices and services in the country. The key measurement parameters will include;

i. Benchmarks with other countries in the regions;
ii. Taxation on accessible services and products.

8.5 International and Regional Undertakings

This KPI will measure the accessibility of ICTs in the region.

The country's adoption of international treaties in ICTs and disabilities.

9. IMPLEMENTATION

No.	Policy	Activities	Period
1.	Develop the ICT and Disability Policy	Literature Review.	2016
		Situational Analysis.	
		Benchmark with other countries and international organizations.	
		Carry out comprehensive multi-stakeholder consultations.	
		Draft the Policy.	
		Policy approval.	
2.	Awareness creation and Sensitization	Conduct quarterly and annual sector-specific awareness campaigns and sensitization programmes for public officials	2016-2018
		Engage the ICT sector to develop its own awareness campaigns	2017
		implement sensitization programmes for the ICT sector to develop products and services that benefit persons with disabilities	2017
	Skills development and capacity building	Carry out a needs assessment	2016-2018
		Procure training materials and resources	
		Training of trainers	
	Improving Access to ICTs by PWDs	Certification of the accessibility ICTs services e.g. e-services, TV programs, websites etc.	
	Public Procurement	Accessible ICTs procurement Policy approved	2016
3.	Social Support	Distribution of accessible devices to schools of PWDs	2017
4.	Availability of Accessible ICTs	Advocate for the reduction of taxes on accessible ICTs	2017-2020
	Accessible ICT Infrastructure	To promote accessible ICT facilities	2017-2020
	M&E	To develop and implement a policy M&E tool to aid in the provision of timely and accurate reports.	2017-2020

10. CONCLUSION

The realization of the ICTs and Disability Policy calls for full participation of multi-stakeholders both in the public and private sector. It calls for strong partnership between Government, industry, development partners and other stakeholders to engage and support the priority Policy actions that have been identified.

Appendix

Appendix 1 Policy Development Roadmap

No.	Item	Activities	Output
1.	Literature Review	a. UNESCO Model Policy for inclusive ICTs in education b. Carry out an internet search for countries that have ICTs and Disabilities Strategies or Policies. c. Carry out an internet Search on multi-international companies for accessibility strategies – Daisy Corporation, Microsoft d. Carry out a search on ICTs and disability strategies at the regional level e. Carry out a search on ICT and Disabilities issues from international ICT organizations such as ITU, CTO, ISOC, WSIS, GSMA f. The ratification of International Conventions on disability by the Ugandan Government e.g. the UN Convention on the Rights of Persons with Disabilities g. The Ugandan Legal environment in relation to disabilities and ICTs	Concept Note
2.	Situational Analysis	a. Compile data on disabilities from census and other credible sources; b. Collect data from the Ministry of Gender on disabilities; c. Collect data from the Ministry of education on disabilities; Schools, Special Needs education department, examination bodies; d. Review data on an audit that was done by the UNESCO/UN University on inclusive	Draft Zero

		education in Ugandan Schools;	
		e. Collect data on strategies and policies for ICTs and disabilities in MDAs and the private sector e.g. URA (e-tax), Equal Opportunities Commission, UNBS, Uganda Manufactures Association; f. Collect data on disabilities and ICTs from formal associations of PWDs (NUDIPU, UNAB), ICT Associations and NGOs; g. Collect data on disabilities and ICTs from the ICT sector regulators e.g. access to TV broadcasting by PWDs	
3.	Strategies development/ Stake Holder Consultations	a. From the literature review and the situational analysis, propose relevant strategies applicable in the Ugandan situation. b. Identify and adopt industry best practices	Stake holder input Reports
4.	Stakeholder involvement framework	a. Identify the relevant stakeholders b. Identify the roles of each stakeholder c. Map the strategies against the stakeholders.	First Draft Policy
5.	Plan for Implementation/ Stakeholder Consultations	a. Identify sources of funding b. Develop cost estimates for actual implementation of some of the strategies by the Ministry of ICT	Second Draft Policy
6.	Monitoring and Evaluation	a. Develop key performance indicators b. Develop a plan for collecting performance over a given period c. Develop a plan for analyzing the performance data d. Develop a reporting plan	Final Draft

Appendix 2 Popular ICT Tools for PWDs

A: Computer Based

No.	Name	Description
1.	JAWS (*Job Access With Speech*)	A computer screen reader program for Microsoft Windows that allows blind and visually impaired users to read the screen either with a text-to-speech output or by a Refreshable Braille display. JAWS is produced by the Blind and Low Vision Group of Freedom Scientific, St. Petersburg, Florida, USA. A July 2015 screen reader user survey by WebAIM, a web accessibility company, found JAWS to be the most popular screen reader worldwide; It is a proprietary software. Official website: http://www.freedomscientific.com/JAWSHQ/JAWSHeadquarters01
2.	ZoomText	magnification and screen reading software for the visually impaired. Official website: http://www.aisquared.com
3.	Dolphin Screen reader *(formerly known as SuperNova Screen Reader)*	Screen reader and Refreshable Braille . Facilitates the scanning and reading (OCR) of paper documents. Supports Windows 7, 8.1 and 10, tablet, laptop and desktop computers. Proprietary software.

B: Mobile Phone Based

No.	Name	Description
1.	**BARD Mobile for Android**	A service from the US National Library Service for the Blind and Physically handicapped (NLS) enables access to nearly 65,000 publications. With BARD Mobile, you can play talking books and magazines on your Android device. BARD Mobile version 1.0.2 for Android is available from Google Play. Free software.
2.	DAISY / EPUB Reader for Android	This is a collaborative project to create an open-source electronic book reader that will support various formats including DAISY and EPUB content. Currently the software is limited to supporting DAISY 2.02 format 'Talking Books'. DAISY / EPUB reader requires a minimum of version 1.5 of Android (also known as 'cupcake'). When the application is installed on a device with version 1.6 or later with TalkBack installed, the navigation of files and folders on the SD card is spoken. The application can be downloaded from the Downloads section of the project site: http://code.google.com/p/android-daisy-epub-reader/downloads/list.
3.	DDReader	A free application for reading accessible digital books in DAISY 3.0 format. It is compatible with text-only books, audio only with navigation and full text with audio. available for free from Google Play.
4.	NewsSpeak	A free news reading app that uses text-to-speech technology to read the latest news and trends out loud. The app is designed for commuters, visually impaired, or anyone who wants to relax and listen to the news. NewsSpeak is available in the App Store and from Google Play.
5.	Mobile Magnifier	Accessories that can be added on a mobile screen to enlarge the display to aid people with low vision. Available from various manufactures.

C: Useful Resources

No.	Name	Description	Link
1.	Daisy Consortium	a global partnership of organizations committed to creating the best way to read and publish, for everyone.	http://www.daisy.org
2.	W3C Consortium	Web content accessibility guidelines	https://www.w3.org/TR/WCAG20/

Appendix 3: Resources

This section provides some training materials and resources for use in awareness raising, capacity building and training in public procurement of accessible ICT.

A: Training Resources

1. ITU, 2009/ "Public Procurement of Accessible ICTs - Training Workshop Presentation"/ Available at www.itu.int/en/ITU-D/Digital-Inclusion/Persons-with-Disabilities/Pages/Resources.aspx

2. National Disability Authority of Ireland, 2012/ "Disability Equality Training for Public Service Staff"/ Online training module available at http://elearning.nda.ie

3. CEN, CENELEC, ETSI, 2013/ "European Accessibility Requirements for Public Procurement of Products and Services in the ICT Domain, (European Union Commission Standardization Mandate M 376, Phase 2)"/ A range of reports on developing an accessible ICT procurement Toolkit. Available at www.mandate376 . Reports of most relevance are:

   o D5: Draft "Online Procurement Toolkit for accessible ICT products and services").

   o D6: Draft "Additional guidance and support material for the procurement of accessible ICT products and services"). Available at: www.mandate376.eu/pc.htm#pc1

4. EN Workshop Agreement (WA) 16266 " curriculum for training ICT Professionals in Universal Design" Available at ftp://ftp.cen.eu/CEN/Sectors/TCandWorkshops/Workshops/CWA16266.pdf

B: Accessible ICT Procurement Toolkits:

1. Universal Design in Public Procurement (Norway)

Name: Universal Design in Public Procurement - Toolbox for buyers in the public sector.

Organization: Joint project between Bergen County, Bergen and pilot municipalities Time / Klepp.

Country: Norway

Year of publication (estimate): Autumn 2008

URL: www.universelleanskaffelser.no/

2. The toolbox for call-for-tenders (Denmark)

Name: Udbudsværktøjskassen (the toolbox for call-for-tenders)

Organization: IT- og Telestyrelsen (National IT and Telecom Agency)

Country: Denmark

Year of publication: 2004, updated December 2009

URL: http://vkassen.itst.dk/

3. IT Procurement Toolkit (Ireland)

Organization: Centre for Excellence in Universal Design at the National Disability Authority (NDA)

Year of publication : February 2007

URL: www.universaldesign.ie/useandsupply/ict/itprocurementtoolkit

4. BuyAccessible Wizard (USA)

Name: BuyAccessible Wizard

Organization: General Services Administration (GSA)

Country:USA

Year of publication (estimate): 2004 (Updates ongoing)

URL: https://app.buyaccessible.gov/baw/

5. **Accessible Procurement Toolkit (Canada)**

Name: Accessible Procurement Toolkit

Organization: Industry Canada (ic.gc.ca)

Country: Canada

Year of publication (estimate):

URL: www.apt.gc.ca/

Appendix 4: Web Content Accessibility Guidelines

ISO/IEC 40500:2012 [Web Content Accessibility Guidelines (WCAG) 2.0] covers a wide range of recommendations for making Web content more accessible. Following these guidelines will make content accessible to a wider range of people with disabilities, including blindness and low vision, deafness and hearing loss, learning disabilities, cognitive limitations, limited movement, speech disabilities, photo-sensitivity and combinations of these. Following these guidelines will also often make your Web content more usable to users in general.

WCAG 2.0 success criteria are written as testable statements that are not technology-specific. Guidance about satisfying the success criteria in specific technologies, as well as general information about interpreting the success criteria, is provided in separate documents

The guidelines can be accessed at : https://www.w3.org/TR/WCAG20/

It contains 12 guidelines namely:

1 Perceivable

1.1 Provide text alternatives for any non-text content so that it can be changed into other forms people need, such as large print, braille, speech, symbols or simpler language.

1.2 Provide alternatives for time-based media.

1.3 Create content that can be presented in different ways (for example simpler layout) without losing information or structure.

1.4 Make it easier for users to see and hear content including separating foreground from background.

2 Operable

2.1   Make all functionality available from a keyboard.

2.2   Provide users enough time to read and use content.

2.3   Do not design content in a way that is known to cause seizures.

2.4   Provide ways to help users navigate, find content, and determine where they are.

3 Understandable

3.1 Make text content readable and understandable.

3.2 Make Web pages appear and operate in predictable ways.

3.3 Help users avoid and correct mistakes.

4 Robust

4.1 Maximize compatibility with current and future user agents, including assistive technologies