



THE REPUBLIC OF UGANDA

MINISTRY OF INFORMATION AND COMMUNICATIONS TECHNOLOGY

**NATIONAL INFORMATION AND COMMUNICATIONS
TECHNOLOGY POLICY FOR UGANDA**

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FOREWORD

In the past twenty years or so, the use of Information and Communications Technology (ICT) has transformed the World by providing opportunities for businesses, opening access to the global marketplace, delivering a wealth of information, enhancing social interaction and enabling greater community participation. ICT is one of the most important tools to achieve economic prosperity of a country both as a modern industry that creates jobs and brings external revenues, as well as a tool for ushering in efficiency and effectiveness in service delivery both by Government and for the private sector. Experiences in developed and emerging economies support the above notion.

Uganda has responded to the Millennium Development Goals through the country's broad national development goals as stipulated in the Uganda Vision 2040 which identifies ICT and the knowledge sector as 'an industry with enormous opportunities that can be exploited to transform the economy and people's lives through job creation, accelerated economic growth and significantly increased productivity'. This is further elaborated in the National Development Plan II (NDP II) that identifies ICT as one of the primary growth sectors. Many of the opportunities being presented today by the ICT revolution can, therefore, be harnessed by efficient deployment and utilization of appropriate technologies.

The National ICT Policy (2014) builds on the ingredients of the National ICT Policy Framework (2003) in a structured manner with requisite updates necessitated by developments since 2003. The revised policy has also incorporated new policy directions in line with the ever-changing technological advancements in this area. The most remarkable changes that have been made in the revised National ICT Policy are inclusion of planned action items in conformity with existing policies and strategies for the underlying sub-sectors, as well as consideration of emerging policy areas brought about by technological changes and convergence of technologies.

This new National ICT Policy Framework 2014 enlists a number of interventions, which if funded and implemented, can bring about drastic and rapid change in the economy. It elaborates on the required actions in the traditional areas of Telecommunications, Broadcasting Infrastructure and Postal Services, but also goes into new areas of Information Technology and Information Management Services. Other areas considered are the Internet and Information Security among others.

The key important requirement to enable ICTs is in getting the ICT policy and regulatory framework and infrastructure right. With this in mind, this document details the Government's objectives for Information and Communications Technology, and sets out a strategic framework for meeting those objectives.

The Government is committed to translating these objectives into action. To this end, priority programs will be established for the Government to take the lead in adopting ICT within the framework of the National ICT Policy.

It is my belief that we need to take advantage of rapid technological advances in the era of ICTs that involve convergences of technologies for computing, communications, broadcasting, among others, for socio-economic transformation of the economy. If we channel the right investments in human capacity development, we shall have laid the foundations for the creation of an Information Society and Knowledge Economy in Uganda. By adopting the ICT Policy (2014), Government is renewing its commitment to overcome the lag in adoption of ICT in the country, so as to achieve Vision 2040, whereby Uganda will have become a middle income Economy.

John M. Nasasira

Minister of Information and Communications Technology

EXECUTIVE SUMMARY

World over, ICT has revolutionized the way people live and work. The Internet and the use of web-based technologies have led to new communication modalities that have forced traditional media to devise new strategies in the struggle to remain relevant. Even at national level, ICTs are increasingly playing a major role in all aspects of life: Cognizant of these developments, Government of Uganda has adopted ICT as a key enabler of socio-economic transformation. This is indeed clearly articulated in the NDP II, and the Vision 2040.

Over the last 25 years, Government has been implementing poverty reduction programmes. The global trend is that all actors need to work together on order to create conditions that will enable the population to overcome their poverty, and reduce their risks and vulnerabilities. In its long term vision, government of Uganda, like all other progressive governments, strives to build a globally competitive and prosperous nation with a high quality of life, within the shortest time possible.

Aware that ICT have the potential to impact economic growth by providing the catalytic role to other sectors, this ICT policy is aimed at supporting the realization of the national vision. The thrust of the policy recommendations is aimed at enhancing the existing Sub-Sector Policies in the areas of Telecommunications, Postal services, Broadcasting, Information Technology and Information Management Services. It goes further to elucidate a number of crosscutting areas ranging from Research and Development, through Human Capacity Building to Awareness Creation and Mass Sensitization, among others. There is a separate chapter on emerging policy areas that include the Internet, Information Security, E-Government, the use of ICTS in Education, Health, Agriculture, Commerce, and a number of other sectors. Finally there are parts on Priority programmes, Institutional Framework, as well as Monitoring and Evaluation.

The guiding principles for the National ICT Policy include enhancing private public partnership in delivery of ICT infrastructure and services; ensuring universal access to basic ICT infrastructure; technology neutrality of ICT services; convergence of technologies, globalization, human rights principles, democracy and good governance; among others.

The contents of the policy are structured in a number of chapters as elucidated below:

Chapter One is on Introduction. It highlights the fact that Information and Communications Technology has in recent years tremendously changed the way Governments and businesses operate. This chapter further recaps on the developments in the Ugandan ICT sector within the last decade. There is a section on situational analysis, international and national commitments as well as policy guiding principles.

Chapter Two states the Vision and the Mission of the revised policy, taking into consideration the Vision 2040 and NDP II.

Chapter Three mentions the broad objectives that provide guidance to the overall policy direction as well as key action areas. These priorities accrue from the development challenges, the NDP, regional and international commitments.

Chapter Four contains the specific policy statements and objectives that cover the ICT sub sectors as well as other cross cutting and emerging areas. The sub sectors are; Telecommunications, Broadcasting, Postal Services, Information Technology and Information Management Services.

Chapter Five provides for policy areas that have recently emerged that require Government's policy announcement. These areas range from Internet, across ICT applications and E-commerce, to tourism.

Chapter Six covers the Implementation Framework. It provides for clear definition of roles, responsibilities and functions of all stakeholders (public, private and civil society) in implementation of this policy. The importance of open broad-based

consultation and participation among all major stakeholders and development partners in transforming various sectors using ICT is emphasized.

Chapter Seven addresses Resource Mobilization. It enlists strategies for mobilization of funds both internally and externally, including use of Public Private Partnerships.

Chapter Eight mentions the key Success Factors. It identifies the risks and uncertainties that require mitigation for effective implementation of this policy.

Chapter Nine covers Monitoring and Evaluation. Realization of the outputs of this policy will require consistent monitoring and evaluation of the outcome indicators. The policy states that the Office of the Prime Minister will carry out monitoring and evaluation (M&E) at different levels of the impact of implementation of this policy. It will be supplemented by all other Ministries, Departments and Agencies (MDAs) who will carry out M&E of implementation of the Policy under their jurisdictions. Core ICT indicators are listed in this chapter as a current snap shot of the sector against which improvement is evaluated.

Lastly, the policy contains a Glossary and Appendix. The Glossary provides a broad definition of terms used within the policy, whereas the Appendix covers priority action areas, activities, actors and time frames for implementation.

1.0 INTRODUCTION

1.1 BACKGROUND

In the last two decades, a number of events have greatly changed the way people all over the world work and live. These are:

- Widespread use of the personal computer;
- The ever present Internet together with the expansion of the World Wide Web; and
- Massive roll-out of mobile communications.

World over, ICT has revolutionized the way production, market access and distribution of goods and services are organized. This has led to new business models emerging on the horizon leading to fundamental changes in the way enterprises relate to consumers. The Internet and the use of web-based technologies have led to new communication modalities that have forced traditional media, i.e. TV, radio and newspapers – to devise new strategies and alternative scenarios in the struggle to remain relevant. In sectors like trade, education, health, banking and agriculture, technology developments have made ICT possible for people to acquire and exchange information in an increasing variety of formats and collaborate with one another across national boundaries. Even in Uganda, more and more people use the Internet daily to communicate and transact business.

Indeed, ICT plays a major role in all aspects of life: economic, political, social and cultural. ICT also relates to human rights and supports freedom of expression and the right of access to information. It is against this backdrop that Government of Uganda has recognized that ICT has become a key enabler of economic and social transformation as clearly articulated in the NDP II, where ICT has been identified as one of the primary growth enablers.

Over the last 25 years, Government has been battling poverty through a number of programmes, among which was the Poverty Eradication Action Plan (PEAP) and the current National Development Plan I 2010/11-2014/15 (NDP I). Even with these interventions, a number of challenges still exist which have hindered attainment of

faster socio-economic transformation. Government, private sector, civil society, academia and the community all need to work together to create conditions that will enable the poor to build their lives, improve their capabilities, safeguard their security and reduce their risks and vulnerabilities. The role of ICTs is catalytic in this complex task of poverty reduction because it leverages effects on earning opportunities, on educational and health services, on good governance and on promoting democracy.

In its long term vision, Government of Uganda aspires to be a globally competitive and prosperous nation with a high quality of life, within the shortest time possible.

Aware that ICTs have the potential to impact economic growth by providing the catalytic role to other sectors, this new ICT policy is aimed at supporting the realization of the national vision, *'a transformed Ugandan society from a peasant to a modern and prosperous country within 30 years'*. The thrust of the policy recommendations is aimed at enhancing the existing Sub-Sector Policies in the areas of Telecommunications, Postal services, Broadcasting, Information Technology and Information Management Services. The policy goes further to elucidate a number of crosscutting areas ranging from research and development, through human capacity building to awareness creation and mass sensitization. There is a separate chapter on emerging policy areas that include the Internet, Information Security, E-Government, the use of ICTS in Education, Health, Agriculture, Commerce, and a number of other sectors. The understanding is that each sub-sector will develop its own detailed policy. Finally, there are parts on priority programmes, Institutional Framework, as well as Monitoring and Evaluation.

1.2 TRENDS AND COMMITMENTS AT GLOBAL, REGIONAL AND NATIONAL LEVELS

The Millennium Development Goals (MDGs) provide an important starting point. The MDGs address specifically: eradication of extreme poverty and hunger; achievement of universal primary education; promotion of gender equality and empowerment of women; reduction of child mortality; improvement of maternal health; combating

HIV/AIDS, malaria and other diseases; ensuring environmental sustainability; and development of global partnerships for the attainment of a more peaceful, just and prosperous world. The role of ICTs in achieving these goals has been acknowledged worldwide. This was reinforced by recommendations from international fora, most especially the Tunis agenda (declaration of the World Summit on the Information Society (WSIS) 2005) which recommended that Governments and all stakeholders should play their role in the promotion of ICTs for development by putting in place mechanisms to address the following:

- a) ICT infrastructure;
- b) Access to information and knowledge;
- c) Capacity building;
- d) Building of confidence and security in the use of ICTs;
- e) Requisite enabling environment;
- f) ICT applications in all aspects of life by embracing e-government, e-commerce, e-learning, e-health, e-employment, e-environment, e-agriculture and e-health;
- g) Cultural diversity and identity, linguistic diversity and local content;
- h) Media;
- i) Ethical dimensions of the Information Society; as well as
- j) International and regional cooperation.

Uganda's Vision 2040 is "A transformed Ugandan society from a peasant to a modern and prosperous country within 30 years". Worldwide, and especially in developing countries, it has been acknowledged that there is a link between Information and Communication Technology (ICT) and human development outcomes. In the context of this new ICT policy for Uganda, the thrust is to harness ICTs to enable Ugandans to lead healthier, longer and more creative lives. In more practical terms, ICTs will be applied in literally all areas of society, with the aim of facilitating human development and increasing peoples' freedoms and choices. They will enhance many aspects of socio-economic development such as health, income, employment, participation and empowerment. To achieve this, there is a strong intention in this ICT policy to attain universal access. This will contribute towards

increasing chances for citizens to participate in developmental activities, leading to fulfillment of their lives and, ultimately, treading on the path that leads to the realization of Vision 2040.

In consonance with the Declaration of Principles of the World Summit on Information Society (WSIS), the usage and deployment of ICTs will seek to create benefits in all aspects of Ugandan's daily lives. Policy interventions have therefore been enlisted to facilitate improved efficiency and effectiveness in service delivery in government operations, health care and health information, education and training, employment, job creation, business, agriculture, protection of environment and management of natural resources, and culture, and to promote eradication of poverty and other agreed development goals. ICTs shall be exploited to contribute to sustainable production and consumption patterns and reduce traditional barriers, providing an opportunity for all to access local and global markets in a more equitable manner.

1.3 SITUATIONAL ANALYSIS

In 1996, Government adopted the Telecommunications policy which led to the liberalization of the sector, creation of Uganda Communications Commission (UCC) as the regulator and privatization of the then incumbent, Uganda Posts and Telecommunications Corporation (UPTC). More reforms in the telecommunications sub-sector were pronounced in 2005 which further opened up the ICT sector to full liberalization. In as much as the sub-sector was being reshaped using liberalization to attract foreign investments, Government realized that there were new issues emerging due to rapid changes in technology and characterized by the advent of the internet. It therefore embarked on a process to address these new trends, which culminated in the approval by Cabinet of National ICT Policy Framework in 2003 to guide the development of the ICT sector in Uganda.

Despite these positive developments, management of different aspects of ICT remained scattered in different Government ministries, leading to creation of silos and lack of coordination in development and implementation of programmes. To

address this, the Ministry of ICT was created in 2006, with an aim of bringing all aspects of ICT under one roof.

To provide further guidance to the sector, a number of policies and laws have since been put in place. Examples include:

- i. The National Information Technology Policy (2011);
- ii. The National e-Government Policy Framework (2011);
- iii. The National Postal Policy (2012);
- iv. The Analogue to Digital Migration Policy (2011)
- v. The National E-waste Management Policy (2012);
- vi. The National County Code Top Level Domain Policy (2013);
- vii. The National Information Technology Authority Act (2009) which led to the creation of the National Information Technology Authority – Uganda (NITA-U);
- viii. The Uganda Communications Act (2013); and
- ix. The Cyber Laws (Computer Misuse Act (2011), Electronic Signatures Act (2011) and Electronic Transactions Act (2011)).

It is important to underscore that under the previous policy regime, regulatory developments, along with other Government and private sector initiatives, significant improvement of the ICT sector has been realized. For instance telephone subscriptions stood at 18.3 million by March 2014, corresponding to a tele-density of 51.3 lines per 100 people. Internet usage has grown, with the number of active internet subscriptions standing at 3.6 million by December 2013 compared to 2.7 million in December 2012. In March 2014, the number of internet users was 7.3 million compared to 6.2 million in June 2013.

Available statistics obtained from UCC as of 2012 indicate the following; Broadband Penetration stood at 9% in 2012. PC Penetration (Number of PCs per 100) – 2.3

(2012). The number of licensed TV stations was 67 with 62 operational. There were 229 licensed FM radio stations, out of which 208 were operational. The volume of Expedited Mail Services (EMS) courier items stood at 134,349 and ordinary mail was 1,497,018. The Number of registered Mobile money subscribers was 14.24 million in December 2013 up from 8.87 million in December 2012 and the value of transactions increased to 18.645 trillion as at December 2013 compared to 11.6 trillion in December 2012. There is now sizeable ICT deployment in the functioning of Government organizations, as well as in the private sector. In addition, ICT now drives some activities in the financial and tourism and informal sectors while various e-Government initiatives are ongoing in various departments at all tiers of Government.

The above data demonstrates that some achievements have been realized in the last decade or so. However, the country needs to move further ahead if it is to harness ICTs for accelerated development and become a middle income country, as stipulated in Vision 2040; hence, the development of this new ICT Policy for Uganda.

1.4 POLICY GUIDING PRINCIPLES

The guiding principles for the National ICT Policy will include but not limited to the following:

- a) Enhancing private public partnership in delivery of ICT infrastructure and services;
- b) Ensuring universal access to basic ICT infrastructure and services;
- c) Technology neutrality of ICT services;
- d) Integrated ICT facilities and services consistent with technological convergence;
- e) The policy implementation shall take into consideration regional and global trends in ICT, as well as universality of human rights principles, democracy and good governance;
- f) Addressing cross cutting issues in ICT such as sustainability, gender, youth and people with disabilities;

- g) Promoting cultural and linguistic diversity and identity including local content;
and
- h) Providing enterprise-oriented and consumer-centric services.

2.0 VISION

'A knowledge society where ICT is central in all spheres of life'

2.1 MISSION

'To leverage ICT for transformation of Uganda into a Knowledge Society by 2025'

3.0 POLICY PRINCIPLES AND OBJECTIVES

3.1 BROAD POLICY OBJECTIVES

The broad policy objectives of the national ICT policy are to;

- i) Build a knowledge based human capital;
- ii) Promote innovation in economic and social systems;
- iii) Expand ICT infrastructure and its integration throughout the country;
- iv) Deepen utilization of ICT services by government, private sector, Non-Government Organizations and citizenry;
- v) Enhance research and innovation in ICT products, applications, and services;
and
- vi) Improve ICT governance and environment in Uganda.

3.2 POLICY KEY ACTION AREAS

The priorities for the ICT sector in Uganda arise from the need to address the development challenges, and are in line with the national Vision 2040, the NDPII, Regional and International commitments such as WSIS and MDGs. Based on these, the following are the priority action areas under this policy;

3.2.1 Expansion of ICT infrastructure and its integration in the Country

The priority actions will include:

- a) Extension of the national backbone infrastructure to cover the entire country as well as addressing last mile challenges;

- b) Integration of the communication, broadcasting and Information infrastructure and systems;
- c) Promotion of reliable and affordable ICT infrastructure in rural, remote and other underserved areas; and
- d) Implementation of the analogue to digital broadcasting migration roadmap.

3.2.2 Deepening utilization of ICT services by government, private sector, not-for-profit ICT organizations and the wider citizenry

The priority actions will be as follows:

- a) Implementation of the national e-government strategy and master plan;
- b) Awareness creation and mindset change; and
- c) Increasing penetration of ICT equipment, services and applications.

3.2.3 Enhancement of research and innovation in ICT products, applications, and services

The priority actions will be as follows:

- a) Development and implementation of an ICT research and innovation strategy;
- b) Promotion of industrial production and assembling of ICT products;
- c) Promotion of software and applications development; and
- d) Setting up of ICT parks to support research and development as well as innovation.

3.2.4 Improvement of ICT governance and environment in Uganda

- a) Consolidation of reforms in the institutional, policy, legal and regulatory environment for the ICT sector; and
- b) Setting of the requisite standards and regulations.

3.3 Improvement of ICT Development Index

The ICT Development Index ranks countries' performance with regard to ICT Access, Usage and Skills. The overall target for implementation of this policy is to improve Uganda's ICT development index as follows:-

Sub Area	2012 Index	Target for 2020 Index
Access	1.96	3.5
Usage	0.75	2.5
Skills	3.69	5.5

Source: ITU

To achieve an improved index, the policy targets the following indicators, among others, by 2020:-

- a) Tele-density from the current 50% to 90%;
- b) Broadband access from the current 512Kbps to 4Mbps and 30Mbps per household for rural and urban respectively;
- c) Broadband cost from the current 180% of per capita income to 10%;
- d) Employment in the ICT sector from current 1 million to 3 million people; and
- e) Contribution to GDP from current UGX 332 billion in 2013 to UGX 600 billion.

4.0 POLICY OBJECTIVES AND STRATEGIES

To achieve the mission and realize the vision of this policy, a number of policy objectives have been identified covering the sub sectors of Telecommunications, Broadcasting, Postal, Information Technology, Information Management Services as well as other crosscutting and emerging areas. Subsequently, the strategies for these policy objectives are also enlisted.

4.1 TELECOMMUNICATIONS

In recognition of the crucial role that easy access to relevant information and efficient communications play in supporting human development, Government ICT policy is to ensure equitable and affordable access to telecommunication services for all the citizens of Uganda through an enabled and competitive private sector.

Government recognizes that a purely commercial approach would marginalize the majority of the citizens and has, therefore, made universal access, supported by appropriate Public Private Partnerships (PPPs) a key objective.

Government shall ensure that Telecommunication services are readily accessible to all at reasonable cost and good quality of service.

To this end, the following objectives and strategies are lined up:

Policy Objectives:

- i. To ensure efficient management and utilization of telecommunications resources for sustainable socio-economic development;
- ii. To further strengthen a legal and regulatory environment that supports development of Uganda's Telecommunications sub- sector;
- iii. To create a conducive environment for the establishment of a fully liberalized, neutral and competitive telecommunications sector; and
- iv. To promote value added services, access to information and service needs to all sectors of society especially the under-served sections of society (rural or low income communities and people with disabilities).
- v. Northern corridor - one area network

Policy Strategies:

Policy Objective i: To ensure efficient management of telecommunications resources for sustainable human development

Strategies:

- a) Maintain a fully liberalized sub-sector in order to attract additional investment;
- b) Promote a pricing and tariff regime that incorporates fair interconnection rates and facilitates the achievement of affordable telecommunications services, including special pricing models for education and health (E- rate pricing model);
- c) Provide incentives such as tax relief for network infrastructure, ICT development, application tools and software, and reduction of excise tax as well as VAT on ICT end-user equipment in order to improve access and affordability; and

- d) Provide for a legal and policy framework for government to monitor and establish a baseline for collection of revenue from national and international telecommunication traffic.

Policy Objective ii: To promote and further strengthen the legal and regulatory environment that supports development of Uganda's Telecommunications sector.

Strategies:

- a) Review, existing legal framework to provide a competitive environment that facilitates and encourages investment in the telecommunications sector;
- b) Harmonize as well as monitor the existing legal and policy framework to ensure alignment with regional and international requirements to support and promote a liberalized, competitive and innovative telecommunications sector; and
- c) Develop the subsector specific competition provisions.

Policy Objective iii: To create a conducive environment for the establishment of a fully liberalized technology-neutral and competitive telecommunications sector

Strategies:

- a) Establishment of a centralized mechanism to plan, build and manage all the public communications Infrastructure in a coordinated manner; and
- b) Enforce fair and efficient management of scarce resources such as spectrum, numbering and rights of way.

Policy Objective iv: To promote value-added services, access to information and service needs to all sectors of society, especially the under-served sections of society (rural or poor communities, women, and people with disabilities).

Strategies:

- a) Develop provisions for regulation of value added services provided over telecommunications networks, like Mobile money; and
- b) Promote the development of telecommunications products and services in local languages, taking into consideration the special needs of rural or poor communities, women, and people with disabilities.

4.2 BROADCASTING

The interventions in this sub sector aim at promoting a broadcasting system based on universal access, diversity within a framework of national unity, democratization on airwaves, nation building, education and strengthening the moral fibre of society. They also aim at promoting the delivery of high quality and efficient broadcasting services by both public and private service providers.

To this end, the following objectives and strategies are lined up:

Policy Objectives

- i. To restructure the broadcasting sub sector to provide for separation of signal distribution and content provision
- ii. To ensure that commercial operators strike a balance between profit and social responsibility
- iii. To promote broadcasting that addresses specific needs and interests of local communities in terms of ownership and socio-economic development agenda
- iv. To provide a platform for growth of additional television and radio services, interactive multimedia, and other services delivered via the Internet;
- v. To ensure effective regulation of media ownership in order to safeguard pluralism, diversity and the overall national interest;
- vi. To streamline the operations of the film and music industries and promote local production and talent;
- vii. To promote the growth of the electronic media advertising industry;
- viii. To create an enabling environment and fairness for all stakeholders in electronic media so as to promote cultural, political and socio-economic development; and
- ix. To ensure that minors are protected from abuse such as pornography and violent programming.

To this end, the following objectives and strategies are lined up:

Objective i: Restructure the broadcasting sub sector to provide for separation of signal distribution and content provision.

Strategies:

- a) Provide an enabling legislation for the establishment of a public broadcaster; and
- b) Ensure that programming promotes diversity.

Objective ii: Ensure that commercial operators strike a balance between profit ICT and social responsibility.

Strategies:

- a) Ensure a significant percentage of local content;
- b) Ensure high professional standards of journalism and integrity; and
- c) Provide programmes of specific interest to the poor and the vulnerable.

Objective iii: Promote broadcasting that addresses specific needs and interests of local communities in terms of ownership and socio-economic development agenda.

Strategies:

- a) Ensure that community broadcasting promotes co-existence, communication and good governance;
- b) Ensure that the structure and mandate of the existing community media conform to internationally accepted best practices for this category; and
- c) Ensure that programming promotes political and socio-economic development.

Objective iv: To provide a platform for growth of additional television and radio services, interactive multimedia, and other services delivered via the Internet.

Strategies:

- a) Create business opportunities for Ugandan entrepreneurs;
- b) Promote pro-competition policies; and
- c) foster sustainable competition across the entire sector.

Objective v: To ensure effective regulation of media ownership in order to safeguard pluralism, diversity and the overall national interest.

Strategies:

- a) Regulate media ownership in such a way as to safeguard pluralism, diversity and the overall national interest;
- b) Ensure protection of the principle of pluralism and diversity
- c) Put in place an appropriate legal framework;
- d) Enforce regulations on foreign and cross-media ownership; and
- e) Ensure full and extensive disclosure of the shareholding and financial structures of broadcasters.

Objective vi: To streamline the operations of the film and music industries and promote local production and talent.

Strategies:

- a) Support the development of local production of music, film, video, advertisements and sound plays; and
- b) Ensure that the rights of local talent are protected

Objective vii: To promote the growth of the electronic media advertising industry.

Strategies:

- a) Streamline the operations of the advertising industry;
- b) Monitor and control the quality of advertisements aired;
- c) Support training in local advertisement production; and
- d) Ensure fairness in political advertising.

Objective viii: To ensure an enabling environment and fairness for all stakeholders in electronic media so as to promote cultural, political and socio-economic development.

Strategies:

- a) Monitor the airwaves to ensure compliance of the broadcasters with the law; and

- b) Promote training of broadcasters in responsible political broadcasting ethics in liaison with the relevant stakeholders.

Objective ix: To ensure that minors are protected from abuse such as pornography and violent programming.

Strategies:

- a) Establish and enforce ethical broadcasting standards that address both pornography and violence; and
- b) Develop a rating system to ensure that the public has adequate advance information about the content of films/programs to be able to make informed viewing choices.

4.3 POSTAL SERVICES

ICT provides numerous possibilities in the delivery of postal services. For instance, automation of mail sorting, and coding has the potential of reducing cost, increasing efficiency and quality of postal services. Further, provision of services such as e-commerce and e-government can enhance the relevance of the postal services, thus compensating for the decline in mail volumes due to the increased usage of electronic substitutes to physical mail.

The policy seeks to develop and embrace ICT in the postal sub-sector with particular emphasis on operational data and address management. Appropriate automation of the various mail processes will not only cut down on mail handling costs but will also improve on the efficiency and quality of postal services.

Objectives:

- i. To ensure an integrated approach to the development and deployment of postal services including other supporting infrastructure such as electricity and transport infrastructure;
- ii. To create an innovative, market responsive, highly competitive, coordinated and well regulated ICT supported postal sub-sector;

- iii. To facilitate Joint Venture initiatives for postal operators between local entrepreneurs and international private investors in the provision of postal ICT goods and services;
- iv. To develop ICT business start-up projects and technology parks to accelerate the development of modern ICT-based postal products and services;
- v. To restructure the postal sub-sector with a view of making ICT a significant contributor to the provision of postal services; and
- vi. To ensure that all postal related activities have minimal negative environmental impact during construction, operation and disposal/de-commissioning.

Strategies:

Objective i: To ensure an integrated approach to the development and deployment of postal services including other supporting infrastructure such as electricity and transport infrastructure.

Strategies:

- a) Develop alternative and affordable energy sources for ICT postal equipment including solar, biomass, wind and other renewable energy sources to supplement the nation's traditional energy sources; and
- b) Fast track the implementation of the National Postcode and Addressing system.

Objective ii: To create an innovative, market responsive, highly competitive, coordinated and well regulated ICT supported postal sub-sector.

Strategy:

- a) Promote, stimulate and support the development of innovative local ICT applications to meet the requirements of the postal sub-sector.

Objective iii: To facilitate Joint Venture initiatives for postal operators between local entrepreneurs and international private investors in the provision of postal ICT goods and services.

Strategy:

- a) Establish and maintain a legal and regulatory environment conducive enough to promote and support the use of ICTs in the delivery of postal services.

Objective iv: To develop ICT business start-up projects and technology parks to accelerate the development of modern ICT-based postal products and services.

Strategy:

- a) Create Centers of Excellence for the research, manufacturing, and assembly of postal ICT products as well as the training of ICT professionals in the postal sub-sector.

Objective v: To restructure the postal sub-sector with a view of making ICT a significant contributor to the provision of postal services.

Strategy:

- a) Develop and implement special incentives like tax reviews to promote the development of affordable local ICT solutions in the postal sub-sector.

Objective vi: To ensure that all postal related activities have minimal negative environmental impact during construction, operation and disposal/de-commissioning.

Strategies:

- a) Develop appropriate database systems and applications including Geographic Information Systems (GIS) to support the integration of ICTs in the provision of postal products and services; and
- b) Encourage the development of ICT Expos/conferences and other knowledge dissemination approaches for stakeholders of the postal sub-sector to ensure technology updates, awareness creation, advocacy, and adherence to standards.

4.4 INFORMATION TECHNOLOGY AND INFORMATION MANAGEMENT SERVICES

Uganda has immense growth prospects for developing world-class Information Technology (IT) industry and services so as to contribute substantially to her economic growth. It's opportune that Uganda strategically positions herself to attract

international ICT companies through the development of a suitable ICT infrastructure. Government recognizes ICT as the enabling tool for development of the country and this policy will support, the promotion of ICT in various sectors including Natural Resource Management (Petroleum, Minerals, water bodies, etc). ICT will above all facilitate widespread roll-out of e-government services so as to actualize good governance and bring in efficiency and effectiveness in service delivery.

This policy focuses on the development of the ICT industry, promotion of information management services (IMS), as well as facilitation of the development of IT-Enabled Services (ITES) in the country.

To this end, the following objectives and strategies are lined up:

Objectives:

- i. To promote the utilization of Information Technology Enabled Services (ITES) to support Business Process Outsourcing (BPO) as a key intervention for job creation; and
- ii. To promote the development of the hardware and software industry.

Strategies:

Objective i: To promote the utilization of ITES to support BPO as a key intervention for job creation.

Strategies:

- a) Set up a policy framework for the ITES and BPO industry in Uganda;
- b) Put in place appropriate incentives that will boost and attract investors in the ITES and BPO such as subsidies on Bandwidth to enhance global competition;
- c) Market Uganda as a preferred ITES and BPO destination within the region; and
- d) To establish partnerships with the private sector to enable the sustainability of the ITES and BPO industry once it is set up.

Objective ii: To promote the development of the hardware and software industry

Strategies:

- a) Initiate PPPs in the hardware and software development industry with a view to accessing the export market;
- b) Mobilize investment in the software and hardware development industry through incentives such as setting up a Hardware and Software Development Fund; and
- c) Encourage the development and utilization of software for the local market and export.

4.5 CROSS CUTTING POLICY AREAS

A number of policy issues cross cut across the sub sectors of Telecommunications, Broadcasting, Postal, Information Technology and Information Management Services. These include ICT infrastructure, legal and regulatory framework, Private sector participation, National ICT Standards , Information Security, Human Resource Development, Research and Development, Universal Access, ICT in Governance, Mainstreaming Women, Youth and PWDs Issues, ICT Promotion and Awareness.

This Chapter presents the policy interventions in these areas:

4.5.1 ICT Infrastructure

The availability of a robust ICT infrastructure underpins sustainable growth in the sector. Similarly, the harnessing of emerging ICT technologies helps in developing new services, make existing operations more efficient and facilitating the opening up of new markets. A pivotal area of intervention is the definition of a set of policies on Infrastructure and ICT Emerging Technologies. On top of this, the effective functioning of the market depends on modern infrastructure that is capable of supporting emerging technologies and services. It is imperative that Uganda builds and sustains such an infrastructure.

To this end, the following strategies are lined up:

- a) Optimize the connectivity to the undersea fiber optic cables;

- b) Scale up the National Backbone Infrastructure (NBI) to cover the whole country to simplify the mode and speed of service delivery to the public.
- c) Encourage participation of the private sector in ICT infrastructure development;
- d) Put in place mechanisms for quality assurance in infrastructure development;
- e) Encourage Internet Service Providers (ISPs) to provide access to the network-based services to even the most remote locations in the country;
- f) Develop rural investment incentives to facilitate the expansion of the national postal infrastructure;

4.5.2 Legal and Regulatory Framework

Currently, the laws guiding the ICT sector are treated under various legislations. These laws are however not comprehensive enough to deal with emerging trends in the sector. There is, therefore, need to continuously review the existing legal framework to ensure it is aligned with the latest technological trends.

To this end, the following strategies are lined up:

- a) Put in place mechanisms for bringing all regulatory functions under one roof;
- b) Develop legislation that addresses privacy and data protection, intellectual property rights,
- c) Review existing legislation to cater for the ever-increasing sophistication of cyber-crime and other forms of information security;
- d) Advocate for curriculum review to include ICT related Laws; and
- e) Hasten enforcement and awareness of the ICT related laws.

4.5.3 Private sector participation

In line with Uganda's macro-economic policy, Government recognizes the Private sector as a key partner who plays a critical role in the process of developing Uganda's information society and economy. The private sector is expected, among other things, to serve as the key driver for the development of the Ugandan economy by providing domestic and foreign investments in ICT services and

infrastructure development, as well as facilitate the mobilization of resources to implement ICT initiatives outlined in this policy.

To this end, the following strategies are lined up:

- a) Involve the private sector in the development of policies, strategic plans and implementation of programs in the sector;
- b) Partner with the private sector in devising innovative and productive ways of establishing a competitive local ICT industry so as to guarantee Uganda's effective participation in the global economy;
- c) Take advantage of business opportunities resulting from the implementation of information society initiatives at International, Regional and National Levels;
- d) Partner with the private sector to support the development of the nation's human resources including promoting private sector investment in education as well as in Research and Development(R&D);
- e) Support the development of local capacity for the manufacturing of ICT products, development of software and hardware products, as well as creating innovative services for local and export markets; and
- f) Advocate for investing in ICT projects for rural and underserved urban areas, as well as traditionally disadvantaged areas.

4.5.4 National ICT Standards

To date, there has been limited effort in regards to developing national standards and regulations pertaining to the ICT sector. Most standards are still in draft form and where they exist, they are not implemented. There is, therefore, need to develop all the necessary standards, regulations and guidelines to facilitate the implementation of policies in the ICT sector.

To this end, the following policy strategies are lined up:

- a) Develop guidelines and enforce standards for software and hardware development, through public and private partnerships;
- b) Develop and enforce standards for new technologies;

- c) Develop and enforce standards for ICT equipment importation;
- d) Monitor and evaluate compliance to set standards.

4.5.5 Information Security

The emerging trend for increased information access/exchange resulting from integrating ICTs within the social, cultural and economic sphere of the country also brings to the fore a number of security, privacy and consumer protection issues that need to be addressed as part of the efforts of developing an information society. Uganda like most countries in the world is vulnerable to some of the negative implications that may hinder the mainstreaming of ICTs in society. Therefore, there is need to put in place specific security measures and mechanisms to ensure the safety of citizens, communities, businesses and the nation at large as part of implementing this policy.

To this end, the following strategies are lined up:

- a) Secure the nation's critical information infrastructure(individual, private and public) as part of creating confidence in the Ugandan information society;
- b) Prevent, detect and respond to cyber-crime and misuse of ICT so as to contribute to the fight against national, regional and international crimes such as pornography, fraud, money laundering, drug trafficking and terrorism;
- c) Ensure cross-sectoral linkages and co-ordination among security agencies in order to adequately address ICT related security concerns;
- d) Develop security policies, standards and procedures to guide the implementation of ICTs in the country;
- e) Implement ICT Security awareness programmes amongst institutional and individual users;
- f) Implement systems that will help in the detection, prevention and timely response to threats relating to ICT crimes and misuse;
- g) Deploy ICTs to facilitate, support and enhance the management, operation and administration of security matters as well as the command and control structure of National Security Agencies; and

- h) Implement ICT skills development within the Security Agencies to support effective deployment and application of ICTs in operations and service delivery.

4.5.6 Human Resource Development

Manpower development is imperative for the local ICT industry to take root on a large scale in Uganda. For the country to achieve and maintain the position of an important player in the international ICT market, a large pool of skilled manpower is required for all components of the ICT industry geared to meeting both local and export needs. However, currently the professional ICT human resource in both public and private sectors is inadequate and lacks relevant professional skills. There is a high rate of ICT illiteracy in both public and private sectors, which is characterized by a digital divide between urban and rural areas, as well as between men and women.

To this end, the following strategies are lined up:

- a) Ensure inclusion of a comprehensive and regularly updated computer literacy module in the curriculum at all levels of education using international benchmarks as reference;
- b) Develop a comprehensive plan for human resource development in ICT to meet present and future manpower needs;
- c) Develop and implement an institutional framework for the ICT function in all MDAs and Local Governments (LGs);
- d) Devise and implement a scheme for distributing affordable computers and Internet access to all academic institutions;
- e) Encourage educational institutions to automate their management systems;
- f) Establish a national educational network to enable sharing among educational institutions of e-libraries, teaching and tutorial systems;
- g) Strengthen existing ICT training institutions and setup new ICT centers of excellence in all districts in Uganda to develop the requisite skills in various ICT aspects including software and hardware development, network management and security through in-service training;

- h) Encourage academic institutions to embrace e-learning so as to enable equitable regional access to ICT training in all parts of the country;
- i) Develop and implement a Certification Framework
- j) Promote "Training of Trainers" scheme to boost capacity building in ICT;
- k) Advocate for training and re-training of all personnel in all MDAs in applying and using ICT to improve the delivery of services to the public;
- l) Encourage ICT companies to play a significant role in ICT education through internship and industrial training schemes; and
- m) Ensure equal opportunity in basic ICT training at all levels taking into consideration special interest groups namely; Women, Youth and PWDs.

4.5.7 Research and Development

Research and development (R&D) in the ICT industry is currently almost non-existent. Activity in this area is mainly in institutions of higher learning which are doing ICT at small scale with limited funds. Government policy in this area will be to prioritize ICT research..

To this end, the following strategies are lined up:

- a) Setup a high level institutional framework to coordinate and focus R&D efforts in the country;
- b) Mobilize funds for R&D in identified Universities and encourage joint R&D efforts between the private sector and Universities, as well as other research institutions;
- c) Set up electronic libraries with on-line linkages to reputed scientific information repositories, accessible to all major towns in the country to ensure economical and equitable access to world class information and publications;
- d) Establish ICT parks and incubators equipped with modern facilities to provide one stop shops for researchers and investors in the ICT industry;
- e) Introduce "Innovative ideas" competitions countrywide covering all levels (from primary schools to tertiary institutions) and R&D centres to instill the spirit of ICT innovation and excellence in young professionals;

- f) Encourage operational research within organizations;
- g) Promote self-reliance in planning, implementation usage and maintenance of ICT systems and equipment;
- h) Stimulate growth of local ICT industries through provision of Government incentives;
- i) Keep watch on global ICT trends vis-a-vis Uganda's competitiveness in the field.

4.5.8 Universal Access

Uganda has been implementing the Rural Communications Development Policy (2001) that addresses universal access among others. Although commendable progress has been made, substantial gaps still exist, especially in broadband access.

To this end, the following strategies are lined up:

- a) Roll out the last-mile broadband access countrywide in the shortest possible time;
- b) Subsidize infrastructure deployment, including broadband, that would foster universal access/service;
- c) Utilize existing infrastructure (Post Offices, Schools, Hospitals) to extend universal access/service;
- d) Provide computers in public places (e.g. post offices, schools, public libraries, etc.) in small and large communities to help low-income segments of society gain access to the internet and for business, educational and other purposes; and
- e) Establish an independent Universal Access Service Fund for the converged industry for effective and efficient delivery of services to un-served and underserved areas of the country.

4.5.9 ICT in Governance

The ICT Governance means actively identifying the service needs of the Government and her customers and to focus on planning and delivering these services to meet availability, performance, and security requirements. ICT also aims at managing

service level agreements to meet agreed-upon security, quality and cost targets. Successful operation of Government would require ICT to be fully integrated with the complete lifecycle of Government's processes, improving service quality and Government agility.

ICT Governance will provide direction for investment activity ensuring: Alignment with business strategy and objectives, ICT enables department growth and efficiency, Responsible use of ICT resources, appropriate management of ICT-related risks.

Under this policy, the issues addressed by ICT Governance include policy management, budget management, risk management, strategy management, portfolio management, investment delivery and enterprise architecture

To this end, the following strategies are lined up:

- a) Institute appropriate ICT Governance and Management policies and strategies;
- b) Continuously identify the appropriate Frameworks and models for effective Governance of ICT; and
- c) Establish an Organizational Structure to best achieve ICT Governance and ICT Management in Government.

4.5.10 Mainstreaming Women, Youth and Persons with Disabilities Issues

The successful penetration of ICTs within the existing social and economic structures depends on its people. However, women, youth and Persons with Disabilities (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 and other communicable diseases among women, youth and PWDs.

4.5.11 ICT Promotion and Awareness

ICT promotion and awareness creation has mainly been done in the public sector but to a limited capacity. As far as the private sector is concerned both promotion and awareness creation is still lacking.

To this end, the following strategies are lined up:

- a) Put in place mechanisms to promote ICT awareness and reduce the digital divide between urban and rural, urban and urban, men and women;
- b) Promote ICT usage in Government by ensuring that all top leaders in Government transform the institutions they lead by championing automation as a priority;
- c) Encourage production of local content in local languages over the Internet;
- d) Establish interactive communication channels for all government officers to share information on new technologies and their benefits;
- e) Encourage utilization and expansion of start-up activities set up by the government;
- f) Mobilize and sensitize communities about the importance of usage of ICT in their day-to-day economic activities;

- g) Facilitate and encourage the use of ICT by special interest groups to make them more productive in the society and utilize this largely untapped human resource. (Special interest groups include: women, youth and PWDs);
- h) Promote use of free open source software and low cost commercial versions of software for normal operations;
- i) Promote the development of the “content industry”, comprising of local content and translation to local languages;
- j) Organize annual special events to show case the development, application and benefits of embracing and using ICTs; and
- k) Encourage the use of Internet and Intranet for inter-office communication within government.

5.0 EMERGING POLICY AREAS

Due to the dynamic nature of the ICT sector, a number of areas have emerged over the last few years that necessitate Government's policy pronouncement. These include Internet, E-waste management, ICT applications, E-Government, E-business, E-learning, E-commerce, E-health, E-employment, E-environment, E-agriculture, E-science, cultural diversity and identity, E-media, E-immigration, youth and women as well as tourism.

This chapter presents the policy interventions in these areas:-

5.1 ENABLING ENVIRONMENT FOR THE INTERNET AND NEW TECHNOLOGIES

ICT has revolutionized communications and social networking, creating a global economy facilitated by the internet. The internet has made information available in a quick and easy manner.

People communicate, share data and work via the internet all day, every day, everywhere, achieving greater levels of efficiency and productivity that were until recently unattainable. The internet plays a great role in transcending territorial boundaries and jurisdictions, thus enabling the process of globalization.

It is important that Uganda puts in place policy interventions that enable quick uptake and safe use of the internet by the population in their day-to-day economic, educational and social activities.

To this end, the following strategies are lined up:

- a) Take advantage of new technologies in order to deliver faster business benefits and reduce cost;
- b) Streamline the management of the dot UG Country Code Top Level Domain name (.UG ccTLD) in line with international best practices;

- c) Put in place mechanisms to ensure that the country is ready for the transition to the next generation global Internet delivery mechanisms including Internet Protocol Version 6 (IPv6) address space;
- d) Optimize the operations of the national Internet Exchange Point and participate in the establishment of regional and international Internet Exchange Points;
- e) In cooperation with the relevant stakeholders, promote regional root servers and the use of internationalized domain names in order to overcome barriers to access;
- f) Promote broadband access to the internet as a basic necessity; and
- g) Promote the development and use of open, interoperable, non-discriminatory and demand-driven standards.

5.2 ICT APPLICATIONS- BENEFITS IN ALL ASPECTS OF LIFE

ICT applications can support sustainable development, in the fields of public administration, business, education and training, health, employment, environment, agriculture, petroleum, science, oil and gas, as well as linguistic and cultural diversity within the framework of national e-strategies. The strategies lined up for these sectors are as follows:

5.2.1 E-government

Priority E-Government applications and services were identified through a survey and consultation with government agencies, citizens and the private sector. Some of them have been implemented to various degrees, while others are yet to be embarked on. The identified priority applications and services are grouped under three categories as presented below:

5.2.1.1 Government to Government (G2G)

- Implement the National data bank;
- Implement electronic document/record management system across government;
- Consolidate the Integrated Personnel and Payroll System (IPPS);
- Consolidate the Integrated Financial Management System (IFMS);

- Implement E-cabinet; and
- Build the Government web portal scoping in local governments.

5.2.1.2 Government to Citizen (G2C)

- Implement the National Identification System together with stakeholders;
- Implement Government open data system to enable citizens access Government information;
- Ensure inter-linkage, sharing, access and availability of justice information between relevant stakeholders (JLOS and MDAs) and the general public;
- Consolidate the Land Information System (LIS);
- Computerize the Voters' Register and its updating, vote counting and voting online;
- Consolidate the e-Tax system;
- Introduce e-immigration procedures;
- Provide up-to-date traffic information online and via mobile phone;
- Implement e-parliament/legislature; and
- Provide up-to-date environmental information, including disaster mitigation and management online or via mobile phone.

5.2.1.3 Government to Business (G2B)

- Build and roll-out an E-procurement System that encompasses the whole procurement cycle;
- Facilitate computerization of customs processes and procedures; and
- Facilitate use of E-Payment for utility bills and for other services.

5.2.2 E-Commerce

- a) Promote the benefits of international trade and the use of e-commerce, and promote the use of local e-commerce models;
- b) Through the adoption of an enabling environment, and based on widely available Internet access, seek to stimulate private sector investment, foster new applications, content development and public/private partnerships; and

- c) Provide assistance to, and growth of SMMEs, in the ICT industry, as well as their entry into e-commerce, to stimulate economic growth and job creation as an element of a strategy for poverty reduction through wealth creation.

5.2.3 ICT in Education

- a) Review curricula at primary, secondary and tertiary levels in order to pedagogically integrate ICTs in the teaching and learning process;
- b) Improve the level of investment in educational ICT equipment, software as well as broadband connectivity of primary, secondary and tertiary institutions;
- c) Impart teachers with the necessary ICT skills in order to enable them use ICTs in the teaching and learning process;
- d) Establish educational networks for sharing educational resources;
- e) Promote the growth and implementation of open, distance and e-learning (ODeL) modes of study; and
- f) Create opportunities and provide assistance for the disadvantaged, people with special needs, women and the youth to acquire ICT skills.

5.2.4 ICT in Health

- a) Promote collaborative efforts of government, planners, health professionals, and other agencies for creating reliable, timely, high quality and affordable health care and health information systems and for promoting continuous medical training, education, and research through the use of ICTs, while respecting and protecting citizens' right to privacy;
- b) Facilitate access to the world's medical knowledge and locally-relevant content resources for strengthening public health research and prevention programmes and promoting women's and men's health, such as content on sexual and reproductive health and sexually transmitted infections, and for diseases that attract full attention of the world including HIV/AIDS, malaria and tuberculosis;
- c) Alert, monitor and control the spread of communicable diseases, through the improvement of common information systems;

- d) Promote the development of international standards for the exchange of health data, taking due account of privacy concerns;
- e) Encourage the adoption of ICTs to improve and extend health care and health information systems to remote and underserved areas and vulnerable populations, recognizing women's roles as health providers in their families and communities; and
- f) Strengthen and expand ICT-based initiatives for providing medical and humanitarian assistance in disasters and emergencies.

5.2.5 E-employment

- a) Encourage the development of best practices for e-workers and e-employers built, at the national level, on principles of fairness and gender equality, respecting all relevant international norms;
- b) Promote new ways of organizing work and business with the aim of raising productivity, growth and well-being through investment in ICTs and human resources;
- c) Promote teleworking to allow citizens, to work remotely, and to increase employment opportunities for women, and for those with disabilities. In promoting teleworking, special attention should be given to strategies promoting job creation and the retention of the skilled work force; and
- d) Promote early intervention programmes in science and technology that should target young girls to increase the number of women in ICT careers.

5.2.6 ICT and the Environment

- a) Promote use of ICT in providing solutions for mitigating climate change;
- b) Encourage use of green ICT;
- c) Implement efficient management and disposal of e-Waste in line with the e-Waste management policy and strategy;
- d) Collaborate with relevant institutions to establish recycling centres and educate the public through the media on how to ensure that the environment is protected;

- e) Setup an e-Waste management Fund to which all importers of electronic equipment shall contribute; and
- f) Establish monitoring systems, using ICTs, to forecast, monitor and manage the impact of natural and man-made disasters.

5.2.7 ICT in Agriculture

Ensure the systematic sharing and dissemination of information on agriculture, animal husbandry, fisheries, forestry and food security using ICTs, in order to provide ready access to comprehensive, up-to-date and detailed knowledge and information, particularly in rural areas; and

Promote Public-Private Partnerships with a view to maximizing the use of ICTs as an instrument to improve the whole agricultural value chain, both in quantity and quality.

5.2.8 ICT in Science

- a) Promote affordable and reliable high-speed Internet connection for all universities and research institutions to support their critical role in information and knowledge production, education and training, as well as support the establishment of partnerships, cooperation and networking between these institutions;
- b) Promote e-Publishing, differential pricing and open access initiatives to make scientific information affordable and accessible in Uganda on an equitable basis;
- c) Promote the use of peer-to-peer technology to share scientific knowledge and pre-prints and reprints written by scientific authors who have waived their right to payment;
- d) Promote the long-term systematic and efficient collection, dissemination and preservation of essential scientific digital data, for example, population and meteorological data in Uganda; and

- e) Promote principles and standards of metadata to facilitate cooperation and effective use of collected scientific information and data as appropriate to conduct scientific research.

5.2.9 Oil and Gas

- a) Use state-of-the-art ICTs and related technologies while exploiting oil and gas fields as well as developing related infrastructure and include such requirements in the national oil regulatory framework to ensure that oil operators are fulfilling them; and
- b) Ensure that the planned oil refinery and oil products distribution networks have capabilities of being efficient by using ICTs in supplying the same to end users.

5.2.10 Cultural diversity and identity, linguistic diversity and local content

- a) Develop a cultural policy that promotes the production of cultural, educational and scientific content and the development of local cultural industries suited to the linguistic and cultural context of the users;
- b) Develop a national policy and laws to ensure that libraries, archives, museums and other cultural institutions play their full role of content - including traditional knowledge - providers , more particularly by providing continued access to recorded information;
- c) Support efforts to develop and use ICTs for the preservation of natural and, cultural heritage, keeping ICT accessible as a living part of today's culture. This includes developing systems for ensuring continued access to archived digital information and multimedia content in digital repositories, and support archives, cultural collections and libraries;
- d) Provide content that is relevant to the cultures and languages of individuals in Uganda, through access to traditional and digital media services; and
- e) Through public/private partnerships, foster the creation of varied local and national content, including that available in the language of users, and give recognition and support to ICT-based work in all artistic fields.

6.0 IMPLEMENTATION FRAMEWORK

The social and economic challenges facing Uganda and the opportunities that ICTs offer pose complex policy choices for the nation. The country has to address the implementation of this policy and mainstreaming of ICTs.

The successful achievement of the National ICT Policy goals and objectives will depend on an integrated and wholesome approach during implementation underpinned by developing strategic synergies and partnerships between the public and private sector as well as civil society. This implies that clear definition of the roles, responsibilities and functions of all the stakeholders must be made. Developing this mutual understanding requires a deliberate and open process of broad-based consultations and participation among all major stakeholders to define the role of ICTs in various sectors.

Apart from the Government having the responsibility to create the right policy environment to accelerate the nation's development through ICTs, the private sector and other key stakeholders like parliament, civil society, academia, media and legal/regulatory agencies as well as Development partners also have key roles to play in order to facilitate the successful implementation of the provisions of this ICT policy.

6.1 INSTITUTIONAL FRAMEWORK

The following institutions are important in creating a favorable institutional framework that will improve policy formulation, coordination and implementation. Currently, the mandate for ICT portfolio lies in the Ministry of ICT. However, in so doing the following portfolios are key in defining the required institutional framework.

6.1.1 Ministry of ICT

The Ministry of ICT shall be responsible for the overall coordination of formulation, implementation, review, target setting and oversight of all ICT strategies and

programmes. Specifically the Ministry in collaboration with/through its Agencies (NITA-U and UCC) shall;

- a) Ensure the achievement of the country's ICT vision by advising Government on ICT matters relating to overall sector performance, policy reforms as well as regional and international trends that have impact on Uganda;
- b) Coordinate ICT activities involving Public sector, Private Sector, Civil Society and Development Partners at all levels;
- c) Coordinate the development of National ICT Implementation Plans and assist in resource mobilization for implementing the National ICT Policy;
- d) Coordinate and support MDAs and LGs and planning institutions to develop/ deploy ICTs as part of the development agenda;
- e) Promote research, development, use and expansion of the ICT industry in Uganda in conjunction with relevant bodies responsible for investment promotion, regulation and human resource development;
- f) Undertake advocacy activities including ICT awareness at all levels through expos, forums, conferences and other forms of stakeholder consultations/ networking etc;
- g) Conduct countrywide regular ICT surveys to monitor and evaluate the performance of the sector;
- h) Coordinate the development of national ICT flagship projects in the sector;
- i) Adequately and effectively represent Uganda at regional and international level on all matters relating to ICTs; and
- j) Mobilize and encourage Development Partners to mainstream ICTs in all country programmes and projects as part of the crusade to accelerate the development and creation of an information society.

6.1.2 National Information Technology Authority - Uganda

The National Information Technology Authority - Uganda (NITA-U) is an autonomous statutory body established under the NITA-U Act 2009, to coordinate, regulate, promote and monitor Information Technology services and development in Uganda.

Specifically, NITA-U shall be responsible for the following:

- a) To provide first-level Technical support for Government Information Technology (IT) systems;
- b) To effect national IT policies, strategies and master plans;
- c) To promote e-Government and e-Commerce amongst others;
- d) To acquire, implement, deliver, support, organize and help with the sustenance of IT equipment and services in Government;
- e) To set and monitor IT standards & guidance for quality services including risk management & contingency planning;
- f) To identify and establish IT training requirements for effective utilization of the technologies;
- g) To provide IT capacity building and awareness facilities; and
- h) To ensure data protection and Information Security on the IT systems deployed.

6.1.3 Uganda Communications Commission

The Uganda Communications Commission (UCC) is mandated with the responsibility of promoting and regulating communications services by ensuring that these services are of high quality, accessible and affordable country wide under the UCC Act 2013. This shall be achieved by undertaking the following functions:

- a) To monitor, inspect, license, supervise, control and regulate communications services;
- b) To allocate, license, standardize and manage the use of the radio frequency spectrum resources in a manner that ensures widest variety of programming and optimal utilization of spectrum resources;
- c) To process applications for the allocation of satellite orbital locations;
- d) To regulate rates and charges for communications services with a view to protecting consumers from excessive tariffs and to prevent unfair competitive practices;

- e) To establish, amend, administer and enforce a national numbering plan and electronic addresses plan; and assign numbers and electronic addresses; and
- f) To conduct, or authorize any person to conduct, technical evaluations relating to communications services.

6.1.4 Uganda Institute of Information and Communications Technology (UICT)

Uganda Institute of Information and Communications Technology (UICT), is of strategic importance in the transformation of the Ugandan society through provision of ICT-enabled human resource development. Its role shall include the following:

- a) Training middle level ICT professionals for the sector (diplomas and certificates);
- b) Carrying out short term tailored to the needs of ICT Practitioner's and stake holders both in the public and private sector;
- c) Under taking ICT research, innovation and development in collaboration with other organizations nationally and internationally;
- d) Providing technical support and consultancy services in the application of ICT solutions; and
- e) Promoting ICT enabled services as Business.

6.1.5 Uganda Post Limited

Uganda Post Limited (UPL), trading as Posta Uganda is charged with the responsibility of providing universal postal services nationally through an extensive network of postal delivery outlets down to sub-country level. UPL delivers mail to post boxes all over the country, and through its post offices offers a host of auxiliary services.

In implementation of this policy, UPL will undertake the following:

- a. Ensure the use of ICTs in delivery of postal services

- b. Be the lead agency in the implementation of the National Postcode and Addressing system
- c. Set up a Center of Excellence for the research, manufacturing, and assembly of postal ICT products as well as the training of ICT professionals in the postal sub-sector.

6.1.6 Parliament

The liberalization of the IT, Telecommunications, Postal and Broadcasting sectors worldwide has opened new requirements for transparent and effective legal and regulatory instruments to govern the sub- sectors. Therefore, the role of Parliament in the effective implementation of this policy shall include among others:

- a) Enacting appropriate and effective laws that will create a flexible, dynamic and responsive legal and regulatory system in the sector to support the development of an information society;
- b) Review of legal framework to support the establishment of policy, coordinating and implementation institutions and the amendment of relevant legislative provisions to facilitate the creation of dynamic regulatory agencies with the capacity to respond to technological advances as well as changes in the global ICT industry;
- c) Facilitate the allocation and approval of financial resources for implementation of this Policy;
- d) Monitor the effective utilization of financial resources allocated to public sector institutions for the implementation of this Policy; and
- e) Ensuring that good governance principles are applied and adhered to in the implementation of this Policy by public sector institutions.

6.1.7 Judiciary

The propagation and penetration of ICTs across the country comes with potential misuse resulting in negative impacts to the nation, businesses and individuals. Therefore, the Judiciary is expected among other things to:

- a) Assist in the delivery of justice to support the performance and growth of the ICT sector;
- b) Implement ICT projects that can accelerate the delivery of justice to benefit ICT of all Ugandans;
- c) Build human resource capacity within the Judiciary system to support the growth of legal framework on ICTs; and
- d) Support the growth of regulatory processes, especially in dispute resolution within the ICT sector.

6.1.8 Cabinet

The single most important role for Cabinet is to provide political and economic will, vision and leadership to facilitate and drive the ICT-for-Development process in order to speed up the development of Uganda's information society. In this way, Government shall set a positive national tone and sense of urgency in a way no other stakeholder can.

In view of the above, Cabinet will provide an enabling political, investment, institutional and legal/regulatory environment to guide the effective participation of other stakeholders. Therefore, the political leadership in the country takes center stage in implementing a coherent national strategy for utilizing ICTs as a matter of top priority.

In this regard, Cabinet will:

- a) Provide visionary and catalyzing leadership at the highest level of Government to Support the implementation of the National ICT Policy;
- b) Become the model user of ICTs as part of an ambitious program to drive E-Services development; and in particular the development of E-Government in Uganda;
- c) Champion the rolling out of sector-based Implementation/Action Plans to mainstream the provisions of the policy in the NDP and other strategic frameworks; and

Specific Specialized Governments Institutions

6.1.9 Finance, Planning and Economic Development (MoFPED)

MoFPED represents Government as the Shareholder in most Government owned business ventures such as parastatals. The coordination of planning activities, as well as resource mobilization and allocation in the country also falls under the same portfolio. Therefore, any efforts aimed at integrating ICT in national development require the active participation of the MoFPED.

6.1.10 Uganda National Council of Science & Technology (UNCST)

UNCST oversees the national science and technology agenda, especially in the areas of research and innovation in the country. It will therefore play an important role in the implementation of this policy in the areas under its mandate.

6.1.11 Ministry of Education and Sports (MoES)

MoES oversees training and human resource development in the country. It will play a lead role in the implementation of this policy in the areas under its mandate.

6.1.12 Local Governments (LGs)

Information plays an important role in the governance (decentralization of power) process of the country. In this regard, access to information, ICT tools and services form the backbone for governance and citizen's participation in national, regional and global affairs. Therefore, LGs in collaboration with the Ministry of ICT (and its Agencies) shall work closely with Central Government, private sector, civil society and other partners to implement this policy.

In this regard, the LGs will:

- a) Deploy and use ICTs in improving citizen's participation in national planning and civic matters including Governance systems using ICTs;
- b) Implement information dissemination and development planning information systems;

- c) Attract local initiatives aimed at promoting investments in Community Radio stations, Internet, computerization, ICT literacy training, etc;
- d) Use ICTs to undertake investment promotion activities in various local authorities; and to jump-start the implementation of the decentralization process through ICTs;
- e) Develop Public-Private Partnerships to implement ICT programmes; and
- f) Mainstream and develop ICT Strategies and Implementation plans in liaison with the Ministry of ICT.

6.1.13 Development Partners

Uganda's Development partners fall in the category of either multilateral or bilateral. Therefore, their participation in the promotion, integration and deployment of ICTs in country programmes is very essential. Access to information and knowledge resources through ICTs is now widely recognized as a vital component in accelerating socio-economic development. Today, the concept of ICT for Development is a priority agenda item in country programmes of many international organizations and development agencies. Therefore, Government shall work closely with development partners involved in sustainable development programmes to undertake the following initiatives:

- a) Mobilize technical and financial resources to support the implementation of this policy;
- b) Integrate ICTs in development cooperation (country support programmes) in Uganda;
- c) Mobilize the support of other partners in fundamental areas of education, infrastructure and universal access, health, governance, scientific research, commerce, etc. to participate in implementing this policy;
- d) Facilitate the setting up of links and relationships between national academic and research institutions and similar institutions abroad;
- e) Support the effective participation of Uganda in international forum concerned with ICTs; and
- f) Promote and encourage investment in ICT through Foreign Direct Investment, ICT Expos, etc.

6.1.14 Private Sector

The private sector as a key partner to Government is recognized as having a critical role in the process of developing Uganda's information society and economy. The private sector is expected among other things to serve as the key driver for the development of the Ugandan economy by providing domestic and foreign investments in ICT services and infrastructure development; as well as facilitate the mobilization of funding/ investments to implement ICT initiatives outlined in this policy.

Other roles envisaged for the private sector include:

- a. Working closely with the Ministry of ICT (and its Agencies) to develop implementation plans and strategies in the policy implementation process;
- b. Supporting and participating in innovative and productive ways of establishing a competitive local ICT industry so as to guarantee Uganda's effective participation in the global economy;
- c. Taking advantage of business opportunities resulting from the implementation of this policy;
- d. Supporting the development of the nation's human resources including promoting private sector investment in education as well as in Research and Development (R&D);
- e. Developing local capability for manufacturing of ICT products; and creating innovative services for local and export markets;
- f. Investing in ICT projects for rural and underserved urban areas; and
- g. Active participation in policy formulation, implementation and review process on an on-going basis.

6.1.15 Academia and Research Institutions

In close collaboration with private sector, civil society, Ministry of ICT (and its Agencies) and other partners; the nation's colleges, universities and research institutions shall play a significant role in implementing this policy by:

- a) Expanding and consolidating the use of ICTs in scientific R&D initiatives;

- b) Developing the nation's critical human and technical expertise as well as its scientific and industrial research capacity;
- c) Active participation in fundamental, applied and cutting-edge ICT-related industrial and scientific research as well as applying the results to facilitate Uganda's development;
- d) Mainstreaming the teaching of ICTs in all aspects of the education and training curricula of universities and colleges;
- e) Deploying and exploiting ICTs to extend scientific and research facilities and to increase access to higher education;
- f) Assuming leadership in testing new technologies and to recommend to Government, the private sector and society in general on the appropriate actions to be taken;
- g) Creating Centres of Excellence with specialized and multi-disciplinary research teams on ICTs; and
- h) Publishing and disseminating the results of research and experimentation, both by traditional and new ICT tools, especially the Internet.

6.1.16 Civil Society

Government recognizes the important role that civil society (represented by traditional leadership, non-governmental and professional organizations, unions, community-based organizations, individuals etc.) play in the socio-economic development of the country. Civil Society is a fundamental element in the preservation of human development and consolidation of governance systems.

The challenges that face civil society in this area are related to: low literacy levels especially in the rural areas and the underserved poor urban communities; inadequate telecommunication facilities, electricity and road network infrastructure and the weak institutional coordination mechanisms.

Therefore, civil society is encouraged to undertake the following initiatives in coordination with the Ministry of ICT (and its Agencies), private sector and other partners:

- a) Explore the potential of ICTs in the development of society, dissemination of information and knowledge;
- b) Use ICTs as a vehicle for the transmission and dissemination of information in development programmes;
- c) Incorporate an ICT component in community development programmes, and in programmes supported by international organizations;
- d) Create institutional mechanisms (NGOs, CBOs etc) to spearhead ICT awareness including implementation of projects at national and community levels;
- e) Monitor and evaluate the performance of the ICT sector in achieving developmental goals, especially in community based initiatives; and
- f) Assist in capacity building, as well as delivery of ICT awareness and literacy programmes in Uganda.

6.1.17 Media

The media (print and electronic) plays an important part in Uganda's social and economic development process, especially with respect to information dissemination. Therefore, it is desirable that media enterprises will employ ICTs in order to enhance their internal production capacities as well as to use ICTs as an efficient and effective tool for information dissemination. Other roles include:-

- a) Ensuring that this policy translates into ICT for Development;
- b) Act as change agents for information dissemination on the role and benefits of ICTs in socio- economic development, especially in communities;
- c) Develop partnerships with implementing agencies in the dissemination of the progress of implementation;
- d) Act as change agents in monitoring and evaluation of implementation processes by various stakeholders.

7.0 RESOURCE MOBILISATION

In order to successfully implement actions and plans arising from this policy, special attention shall be paid to internal and external resource mobilization strategies; targeting the involvement of private sector through Public Private Partnerships (PPPs). The role of development partners and other stakeholders is very important. The Ministry of ICT (and its Agencies) shall be responsible for coordinating resource mobilization in conjunction with the MoFPED for implementing the National ICT Plan. This shall include coordinating investments, providing for equitable and transparent resource allocation as well as monitoring and evaluation.

In particular, financial resource mobilization shall include;

- a) Contributions from the national budget reflected as percentage expenditure on ICTs in the sector budgets;
- b) Contributions/sponsorship from national stakeholders/local industries;
- c) Contributions from bilateral/multilateral development partners;
- d) Contributions from the Rural Communications Development Fund (RCDF) and any other established Funds supporting ICT; and
- e) Collections realized from charges, fees and revenue from ICT services provided by the Ministry of ICT through services by its Agencies.

The financial implication for implementation of the policy by the Ministry of ICT is estimated to cost Ug. Shs. 9,430,000,000/= over a period of three years. (The details are reflected in Annex 2) Individual sectors, institutions and the private sectors will budget for activities in relation to their roles in the implementation of this policy.

8.0 KEY SUCCESS FACTORS

There are a number of risks and uncertainties being identified that may adversely affect the execution of this policy. For successful implementation of this policy, it is critical that:

- a) Adequate resources (financial, human and physical) are mobilized;
- b) All stakeholders play their respective roles;
- c) Regular adjustments are made to respond to the rapid technological changes that characterize the ICT sector; and
- d) Individual sub sectors draw their priorities from this policy.

9.0 MONITORING AND EVALUATION

In accordance with the Constitution of the Republic of Uganda, section 108 (a), the Prime Minister shall be responsible for the implementation and coordination of Government policies across MDAs and other public institutions. The Office of the Prime Minister (OPM), therefore, shall take the lead in the monitoring and evaluation of the implementation of this policy.

Realization of the outputs of this policy will require consistent monitoring and evaluation of the outcome indicators. The Ministry of ICT will undertake monitoring and evaluation of the ICT sector as a whole as part of the overall monitoring of all sectoral programmes. In addition, individual sectors and institutions will monitor and evaluate their ICT programmes and projects at different levels.

A monitoring and evaluation framework shall be developed to provide guidance. The policy shall be subjected to a mid-term review every three (3) years and a long term review every five (5) years in order to cater for the fast rate of technology innovation and advancement.

9.1 Core ICT Indicators

The UN Statistical Commission endorsed the core list of indicators on information and communication technologies (ICT), which was developed by the Partnership on

Measuring ICT for Development in 2007. This is the list that most countries have adapted to measure their progress towards transforming themselves into the Information Society.

The core list of ICT indicators is composed of over 50 indicators in the following areas:

- ICT infrastructure and access;
- ICT access and use by households and individuals;
- ICT access and use by enterprises;
- ICT sector and trade in ICT goods;
- ICT in education; and
- ICT in government.

The indicators below are an extract from that list which shall be used for measuring the progress while implementing this policy.

- a) Fixed telephone lines per 100 inhabitants
- b) Mobile cellular telephone subscriptions per 100 inhabitants
- c) Fixed Internet subscribers per 100 inhabitants
- d) Fixed broadband Internet subscribers per 100 inhabitants
- e) Mobile broadband subscriptions per 100 inhabitants
- f) International Internet bandwidth per inhabitant (bits/second/inhabitant)
- g) Percentage of the population covered by a mobile cellular telephone network
- h) Fixed broadband Internet access tariffs per month in US\$, and as a percentage of monthly per capita income
- i) Mobile cellular telephone prepaid tariffs per month in US\$, and as a percentage of monthly per capita income
- j) Percentage of localities with public Internet access centres (PIACs)
- k) Proportion of households with a radio
- l) Proportion of households with a TV
- m) Proportion of households with telephone
- n) Proportion of households with a computer
- o) Proportion of individuals who used a computer in the last 12 months

- p) Proportion of households with Internet access
- q) Proportion of individuals who used the Internet in the last 12 months
- r) Location of individual use of the Internet in the last 12 months
- s) Internet activities undertaken by individuals in the last 12 months
- t) Proportion of individuals who used a mobile cellular telephone in the last 12 months
- u) Proportion of households with access to the Internet by type of access
- v) Frequency of individual use of the Internet in the last 12 months
- w) Proportion of households with electricity
- x) Proportion of businesses using computers
- y) Proportion of persons employed routinely using computers
- z) Proportion of businesses using the Internet
- aa) Proportion of persons employed routinely using the Internet
- bb) Proportion of businesses with a web presence
- cc) Proportion of businesses with an intranet
- dd) Proportion of businesses receiving orders over the Internet
- ee) Proportion of businesses placing orders over the Internet
- ff) Proportion of businesses using the Internet by type of access
- gg) Proportion of businesses with a local area network (LAN)
- hh) Proportion of businesses with an extranet
- ii) Proportion of businesses using the Internet by type of activity
- jj) ICT Proportion of total business sector workforce involved in the ICT sector
- kk) ICT sector share of gross value added
- ll) ICT goods imports as a percentage of total imports
- mm) ICT goods exports as a percentage of total exports
- nn) Proportion of schools with a radio used for educational purposes
- oo) Proportion of schools with a television used for educational purposes
- pp) Proportion of schools with a telephone communication facility
- qq) Learners-to-computer ratio in schools with computer-assisted instruction
- rr) Proportion of schools with Internet access by type of access
- ss) Proportion of learners who have access to the Internet at school

- tt) Proportion of learners enrolled at the post-secondary level in ICT-related fields
- uu) Proportion of ICT-qualified teachers in schools
- vv) Proportion of schools with electricity

To date, a comprehensive baseline survey capturing the above indicators has never been carried out. At the onset of implementation of this policy there will be need to carry out such a survey to facilitate regular updating of these indicators so that they are accurate and can show the status of ICT in Uganda.

GLOSSARY

ICT Emerging Technologies	This is a general term for new technologies in ICT such as open data, use of social media, white space, IPv6, etc. They are rapidly altering the business and social environment.
ICT Governance	The term refers to specifying the decision rights and accountability framework to encourage desirable behavior in the use of ICT.
Information Technology (IT)	The term information technology includes computers, ancillary equipment, software and firmware (Hardware) and procedures, services and includes any equipment or Interconnected system or subsystem of equipment, which is used in the automatic acquisition, storage, manipulation, management, movement, control, display, switching, interchange, transmission or reception of data or information.
Green ICT	This is the practice of designing, manufacturing, using and disposing of computers, servers and associated subsystems-such as monitors, printers, storage devices, networking devices and communications systems efficiently and effectively, with minimal or no impact on the environment.
Knowledge Society	Knowledge Society is one that creates, shares, and uses knowledge for the prosperity and well-being of its people.

Local Content

The expression of the locally owned and adapted knowledge of a community – where the community is defined by its location, culture, language, or area of interest.

Metadata

Data that serves to provide context or additional information about other data. For example, information about the title, subject, author, typeface, enhancements, and size of the data file of a document constitute metadata about that document. It may also describe the conditions under which the data stored in a database was acquired, its accuracy, date, time, method of compilation and processing, etc.

ANNEX 1 PRIORITY AREAS, ACTIVITIES, ACTORS AND TIME FRAME FOR IMPLEMENTATION

Priority	Activities	Actors	Target dates
1. Broadband Infrastructure	Roll out broadband infrastructure using public and private resources or through public and private partnerships;	NITA-U, UCC, Public Infrastructure Providers (PIPs)	2018
	Update and align national broadband strategy in synergy with other regional initiatives to ensure optimum connectivity to international networks;	MoICT, NITA-U, UCC, PIPs	June 2016
	Improve the regulatory capacity with attention to regulation of ICT convergence, pricing, value-added services, open access and infrastructure sharing;	UCC	June 2016
2. Policy and regulatory frameworks	Establishing converged technology neutral licensing regimes that are consistent with the regulation of advanced broadband technologies;	UCC	June 2016
	Address emerging regulatory challenges to the diffusion of broadband networks covering aspects such as effective spectrum management, fair interconnection and open access;	UCC	June 2016
	Formalize the harmonization of regulations in certain areas such as interconnection, spectrum management at the regional levels;	UCC and other regional regulators	June 2016
3. Securing Affordable and Universal Access	Update the Universal Access strategy with particular consideration for integrated infrastructure development (rolling out energy, telecom, transport, broadband access and ICT applications) and broadband network;	UCC, NITA-U, Private Sector	June 2016
	Promote and harmonize access of communication services to the citizen through ICT community centers, cybercafés, schools and other access points such as libraries, post offices and municipal spaces;	RCDF, Posta Uganda, NITA-U, National Library, Private sector	June 2016
	Ensuring availability of and access to affordable quality services;	UCC, Operators	December

			2016
4. Developing human resources	Develop and rollout ICT curriculum at all levels of Education system;	MoES, NCDC, NCHE, UNEB, UBTEB, MoICT, NITA-U	2017
	Establish and maintain ICT innovation centres of excellence in institutions of higher learning;	MoICT, MoES, UCC, NITA-U, Institutions of higher learning	2016
	Create incentives to retain a knowledgeable ICT workforce that will be able to contribute to the maintenance and further development of ICT;	Parliament of Uganda, MoPS, MoFPED, MoICT, Private Sector	December 2017
5. Promotion of Public and Private Partnerships	Operationalize the National Public and Private Partnerships policy within the ICT sector	MoFPED, MoICT, NITA-U, UPL and Private Sector	2016
6. Competition Rules	Adoption of open access and open standards	UCC	June 2016
	Fair cross-border interconnection	UCC	June 2016
	Legal frameworks for competition	UCC	June 2016
	Frameworks for sharing infrastructure	UCC	June 2015
7. E-transactions and online content	Establish a national working group that addresses the challenges of online environment; and	NITA-U	June 2016
	Develop legislation that address privacy and data protection, intellectual property rights and update existing legislation to cater for cyber-crime.	MoICT, MoJCA, ULRC, NITA-U, UCC, URSB	June 2016
	Operationalize the legislation on computer misuse, freedom of information, electronic signatures, electronic transactions;	MoICT, NITA-U, MoTIC	June 2016
8. Research and Development	Operationalize ICT related matters addressed within the Science, Technology and Innovation Policy	MoICT, NITA-U, UCC, UNCST, Academia, Private Sector	June 2016

9. ICT applications for development	Encourage the deployment of ICTs across all socio-economic sectors; especially in priority areas, namely, e-Government, e-Environment, e-Education, e-Agriculture, e-Commerce, e- Health, e-Culture, e-Immigration, E-Employment;	All Sectors together with Private Sector	2016
	Promote development of relevant and valuable applications to support local SMEs;	MoICT, MoTIC, UCC, UNCCI and Institutions of Higher Learning	2016
	Promote and develop e-content to increase global presence of values, cultures, languages and indigenous knowledge of Uganda	MoGender and culture,	2016
	Operationalize the information security strategy in order to build confidence in the development and use of ICT applications, taking into consideration better management of the cyberspace, from the producer as well as from the consumer point of view; and	MoICT, NITA-U	June 2016
	Promote the development and use of open source software, and building applications that are based on open standards;	MoICT, NITA-U, Academia and Private Sector	2016
10. Monitoring and evaluation	Establishment of ICT indicators and indices;	MoICT, OPM, UCC, NITA-U, UBOS, NPA	June 2016
	Systematic gathering, processing and dissemination of ICT data as well as information;	UBOS, MoICT, UCC, NITA-U	June 2016
11. ICT leadership	capacity building for policy makers to align with regional and international trends;	Strategic Partners	continuous
	Identify and nurture ICT champions and change agents in all sectors at political, executive and technical levels;	Cabinet secretariat, Parliament of Uganda, Office of the President, OPM, MoICT, MoPS	June 2016
12. ICT entrepreneurship and jobs	Establish the environment for ICT enabled business including incentives for the private sector, setting up technology parks and	MoFPED, MoICT, NITA-U and Private	June 2016

	incubators	sector	
13. Promoting Public awareness	Develop and implement Public Awareness Strategy across all the ICT sub sectors and other emerging policy areas	MoICT with all stakeholders	continuous
14. Addressing the needs of women, youth and physically challenged	Integrate the aspects of gender, youth, PWDs and marginalized groups in ICT programs and interventions	All sectors	continuous
15. Analogue to Digital broadcasting migration	Operationalize the Analogue to Digital broadcasting migration plan;	MoICT, MoING, UCC and broadcasters	December 2016
16. Postcode and Addressing System	Put in place the requisite harmonized legal framework for the National Postcode and Addressing;	MoICT, UCC, Posta Uganda	December 2016
	Roll out the National Postcode and Addressing system;	MoICT, MoLG, MoLHUD, UCC, Posta Uganda	2016
17. Caucusing on international and regional issues	Participate in and follow global ICT events and trends	All sectors	continuous
	Organize and host national and international events/ conferences on ICT related matters.	MoICT, MoFA, UCC, NITA-U, Posta Uganda, Academia and other sectors	continuous
18. ICT standards	Develop, enforce and monitor compliance with set standards	UCC, NITA-U, UPF	continuous

ANNEX 2 MINISTRY OF ICT'S BUDGET FOR IMPLEMENTING THE NATIONAL ICT POLICY

Priority	Activities	YEARS		
		FY 2015/16	FY 2016/17	FY 2017/18
1. Broadband infrastructure	Update and align national broadband strategy in synergy with other regional initiatives to ensure optimum connectivity to international networks	50,000,000	50,000,000	50,000,000
2. Human Resource development	Establish and maintain ICT innovation centres of excellence in institutions of higher learning	400,000,000	400,000,000	400,000,000
	Create incentives to retain a knowledgeable ICT workforce that will be able to contribute to the maintenance and further development of ICT	50,000,000	50,000,000	50,000,000
3. Promotion of Public and Private partnerships	Operationalise the National Public and Private Partnerships policy within the ICT sector	50,000,000	50,000,000	50,000,000
4. E-transactions and online content	Establish a national working group that addresses the challenges of online environment	80,000,000	80,000,000	80,000,000
	Develop legislation that addresses privacy and data protection, intellectual property rights and update existing legislation to cater for cyber-crime	50,000,000	50,000,000	50,000,000
	Operationalise the legislation on Computer Misuse, freedom of information, electronic signatures and electronic transactions	80,000,000	80,000,000	80,000,000

5. Research and Development	Operationalise the ICT related matters addressed within the STI Policy	80,000,000	80,000,000	80,000,000
	Promote development of relevant and valuable applications to support local SMEs	100,000,000	100,000,000	100,000,000
	Operationalise the National Information Security Strategy in order to build confidence in the development and use of ICT applications, taking into consideration better management of the cyberspace	120,000,000	120,000,000	120,000,000
	Promote the development and use of open source software, and building applications that are based on open standards	50,000,000	50,000,000	50,000,000
6. Monitoring and evaluation	Establishment of ICT indicators and indices	60,000,000	60,000,000	60,000,000
	Systematic gathering, processing and dissemination of ICT data as well as information	550,000,000	550,000,000	550,000,000
7. ICT Leadership	Capacity building for policy makers to align with regional and international trends	120,000,000	120,000,000	120,000,000
	Identify and nurture ICT champions and change agents in all sectors at political, executive and technical levels	50,000,000	50,000,000	50,000,000
8. ICT entrepreneurs hip and jobs	Establish the environment for ICT enabled business including incentives for the private sector, hasten setting up technology parks and incubators	100,000,000	100,000,000	100,000,000
9. Caucusing on International and regional issues	Participate in and follow global ICT events and trends	100,000,000	100,000,000	100,000,000
	Organize and host national and international events/ conferences on ICT related matters	100,000,000	100,000,000	100,000,000
ANNUAL TOTALS		3,470,000,000	3,470,000,000	3,390,000,000
GRAND TOTAL		9,430,000,000		