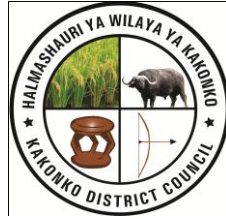


KAKONKO DISTRICT COUNCIL



Information Communication Technology Unit (ICT Unit)

INFORMATION AND COMMUNICATIONS TECHNOLOGIES POLICY OF KAKONKO DISTRICT COUNCIL

July 2014

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GLOSSARY

Broadcasting – A term referring to the distribution of information using radio, television, Internet and intranet or webcasting.

Digital Divide – The technological gap between countries that have fully exploited ICT and those that have not. The digital divide is often associated with the resulting gap in terms of economic development.

e-Commerce / Electronic Commerce – Business activities involving consumers, manufacturers, suppliers, service providers and intermediaries using computer networks such as the Internet.

Global Information Infrastructure (GII) – The components making up a wide area network arising from multiple heterogeneous networks, which facilitate multidimensional communication among different nations, business and organisations.

Information and Communication Technologies (ICT) – Is a generic term used to express the convergence of information technology, broadcasting and communications. One prominent example is the Internet.

Information Based Economy (IBE) - A country or region where ICT is used to develop economic foundation and market transactions.

Information Society (IS) – A country or region where information technology has been fully exploited and is part of everyday life as an enabler of information sharing, communication and diffusion.

Information Technology (IT) – Embraces the use of computers, telecommunications and office systems technologies for the collection, processing, storing, packaging and dissemination of information.

Internet Service Provider (ISP) – Also known as Internet Access Providers – Is a company that provides infrastructure for access to the Internet or for interconnecting other ISPs and content-based or application-based services on the Internet.

Knowledge Based Economy (KBE) – A country or region where ICT is extensively used to enhance knowledge so that higher human capital brings further improvement to the economy.

Local Area Network (LAN) – A computer network that spans a relatively small area. Most LANs are confined to a single building or group of buildings. However, one LAN can be connected to other LANs over any distance via telephone lines and radio waves.

Wide Area Network (WAN) – A computer network that spans a relatively large geographical area. Typically, a WAN consists of two or more local-area networks (LANs). Computers connected to a wide-area network are often connected through public networks, such as the telephone system. They can also be connected through leased lines or satellites. The largest WAN in existence is the Internet.

LIST OF ACRONYMS

AIDS		Acquired Immune Deficiency Syndrome
ATM	-	Automated Teller Machine
GDP	-	Gross Domestic Product
HIV	-	Human Immunodeficiency Virus
ICT	-	Information and Communications Technologies
IP	-	Internet Protocol
ISP	-	Internet Service Provider
IXP	-	Internet Exchange Point
LAN	-	Local Area Network
NGO	-	Non-Governmental Organisation
NTP	-	National Telecommunications Policy
PCIS	-	Personnel Controls Information System
PoP	-	Points of Presence
PMO	-	Prime minister's Office Regional Administration and Local
RALG		Government
TPC	-	Tanzania Posts Corporation
TPB	-	Tanzania Postal Bank
TTCL	-	Tanzania Telecommunications Company Limited
TVT	-	Television Tanzania
VoIP	-	Voice over Internet Protocol
VPN	-	Virtual private network

1. INTRODUCTION

1.0 Background

Inevitability of entrance into usage of ICT technology has been influenced by the incidence of local government to enter into a period that necessitate it to provide service to the community in high quality regardless to the inadequate resources. Dew to this challenge ICT is inescapable to improve and facilitate the functioning of various sectors. This is also due to fact that the whole world depends on science and technology in enabling performance of various activities.

Our government, all independent departments and independent sectors are conforming to current working situation where Science and Technology are key for any activity. This has been done through introducing ICT unit as a specific unit that work independently for enabling current working mechanisms.

It is also well argued that in this era Information is power and Knowledge is a resource for influencing development. In this regard, the Council is expected to improve the growth of ICT Unit for finally bringing efficiency in performance, improving infrastructure and developing modern conducts of doing work.

ICT Unit of Kakonko District Council is focusing on improving, maintaining, insuring proper usage of the ICT technology and ICT equipment's especially by recognizing the value and importance of shared resources in the whole concept of improving public ICT services of the Council.

1.1 Overview

In improving the functioning of local government, the government revised the structure of local government and provided new local government structure according to the current needs. The new local government structure was approved and Hon President of the United Republic Tanzania in June 2011.

The organization structure constituted thirteen departments namely;-

1. Department of leadership and civil service
2. Primary Education Department
3. Secondary Education Department
4. Water Department
5. Works Department
6. Department of Planning Statistics and Economics
7. Department Of Finance
8. Health Department
9. Department of Land and Natural Resources
10. Department of Environmental and Sanitation
11. Department of Agriculture, Irrigation Cooperation
12. Department of Community Development and Social Welfare
13. Department of Livestock and Fishing

Six specified Units namely,

1. Internal Audit Unit,
2. Election Unit,

3. Bee Keeping Unit,
4. Procurement and Supply's Unit
5. Law Unit,
6. Information Communication Technology Unit

District Councils Objectives

- A. Improve services and reduce HIV/AIDS infection
- B. Enhance, sustain and effective implementation of the National Anti-corruption Strategy
- C. Improve access, quality and equitable social services delivery
- D. Increase quantity and Quality of social services and Infrastructure
- E. Enhance Good Governance and Administrative Services
- F. Improve social welfare, gender and community empowerment
- G. Improve Emergency and Disaster Management

The new structure of the council, aims to improve the functioning of the district in order to achieve efficiency. The main aim of the council is

Unit information and communications technology ICT is among the six units of the council. ICT Unit has the following responsibilities;

Information and Communication Technology Unit Responsibilities

ICT Objective;-

To provide expertise and services on application of ICT to the RS.

- (i) Prepare ICT Strategic Plan, guidelines and procedures in line with National ICT Policy;
- (ii) Advise District Council Management on the matters pertaining to policies related to ICT and e-government implementation;
- (iii) Oversee ICT development and implementation in the District Council;
- (iv) In collaboration with PMO-RALG assist to coordinate and develop ICT Standards for software and hardware acquisition at the Local Government Authorities;
- (v) Facilitate the District Council in the development and implementation of ICT initiatives;
- (vi) Coordinate the designing, implementation and maintaining web-based applications and database of the District Council;
- (vii) Assist to coordinate implementation of Management Information System from other Ministries, Departments and Agencies (MDAs) and other stakeholders;
- (viii) Provide and coordinate Information Technology support to the District Council and Local Government Authorities at large;
- (ix) Monitor ICT hardware and software and keep inventory at the District Council;
- (x) Evaluate, improve and monitor ICT and Management Information Systems deployed at the District Council and LGAs;
- (xi) Conduct Training Needs Assessment on MIS and ICT and prepare capacity building plan;
- (xii) Perform and assess risks management and control pertaining to ICT infrastructure and Management Information Systems;
- (xiii) Provide quality assurance services at District Council;
- (xiv) Develop and maintain District Council website;

- (xv) Use of ICT in data and information handling;
- (xvi) Facilitate the District Council in the use of ICT in data collection, storage, processing, analysis, reporting, dissemination and archiving;

ICT Unit of the local government has an obligation of making sure that there is conducive environment for each system introduced by the government to work as intended otherwise it should give professional advice on what to be done for the system to work. In addition to that, the ICT unit has to mobilise government officers to use wisely present ICT systems, Computers and Computer programs for improving efficiency.

1.2 ICT Vision and Mission Statements

Vision

To be the center of solution for computer user problems and computer systems.

Mission

Deliver ICT help to various Departments and Units so as they fulfill their objectives that are to be done through ICT and Computer Systems Usage.

1.4 The National ICT Policy Vision and Mission

Vision

“Tanzania to become a hub of ICT Infrastructure and ICT solutions that enhance sustainable socio-economic development and accelerated poverty reduction both nationally and globally.”

Mission

“To enhance nation-wide economic growth and social progress by encouraging beneficial ICT activities in all sectors through providing a conducive framework for investments in capacity building and in promoting multi-layered co-operation and knowledge sharing locally as well as globally.”

1.4 Overall ICT Objectives

1. To insure all Computer Systems introduced in various Departments and Units are well functioning.
2. To provide professional help for all *ICT problems* rises within different Departments and Units in their daily work.
3. To mobilise Departments and Units to rely on ICT in their daily work in order to bring efficiency, reducing costs and streamlining the operation.

2. STATUS OF ICT IN KAKONKO DISTRICT

2.0 ICT Unit of Kakonko District Council

Kakonko District Council emerged as the result of division of Kibondo District into two districts namely Kibondo District and Kakonko District. It was initiated in the day of 08 month of March the year 2013 and published in government gazette of 08/03/2013 with GN.42.

ICT Unit is among specified units of kakonko District Council. It has ICT officers and Information Officers professionals. The Unit started in 2011 as implementation of Circular Letter regulation from Presidents Office Implementation Committee agreements of 2006. It was started as per 2011 current local government organisation structure approved and announced by the President of The United Republic of Tanzania.

Since that time the Local Government has received several regulations on how to handle ICT equipment's, the functions of ICT unit and proper usage of ICT Information Systems. The national ICT policy of 2003, the guideline for efficient, proper, correct and secure usage of ICT information systems and ICT equipment's in the government given by Presidents Office, Management of Human Resource and Civil servants provided in July 2012 have both become the key in ICT Unit performance.

Not only that but also good collaboration of ICT Unit and ICT Department of PMO RALG, eGA, and TCRA has resulted into success in using ICT Information Systems in local government authorities.

2.1 Current ICT Situation

ICT plays an important role in improving working performance, reducing costs for implementing a strategy and support the implementation of the general council objectives. First ICT goal is to focus on ensuring that the Council's ICT infrastructure provides services to enable the Council to work for its basic problems it's facing.

Basic problems of focus are great needs of social services and high community expectations regarding government service delivery. Citizens and businesses man rely on getting service from the government anywhere and expect their government to focus on serving the public through modern technology. ICT aims to enable the government to serve public through modern technology and using properly existing information systems. This will raise the capacity of saving public on time in all conditions and in line with the priorities customary.

The security of our systems of communication is very important in order to prevent the Councils into information risks that may emerge. ICT shall help in teaching computer users and control the knowledge about the presence of threats in computer communication systems. This kind of awareness shall maintain the security of documents, information and data protected inside the computer.

District Councils in our country were using ICT as a subsistence service only to where each unit and department found themselves already in the use of computer and computer systems without clear understanding on this matter. Government has provided a chance by emerging ICT unit for enabling an accurate understanding of the issues of computer security and proper ways of

using a computers, computer peripherals, and computer systems for facilitating the operations.

2.2 ICT Unit Responsibilities

ICT has wide roles to perform in district councils, the major roles are listed below;

1. Build employees capacity in CT issues in general by:-
 - Providing regular training on the use of ICT equipment's and computers systems
 - Creating awareness about the issues of technology and Computer systems
2. Provide Standards and Guidelines on the use of ICT by:-
 - Preparing policies and standards (Policy and Local Standards)
 - Provide maintenance procedures, dispersal and treatment mechanisms for unused ICT devices
3. Make sure the technologies used to excellence eligible by:-
 - Providing professional service (Technique support)
 - Guarantee working together (Networking)
 - Manage the movement and usage of information systems
 - Establish future goals and vision about technology improvement.
4. Ensuring good governance by:-
 - Striving for the community to gets clear information they deserve through printed documents, radio, networks and website.

3. POLICY OBJECTIVES, CHALLENGES AND POLICY STATEMENT

3.0 ICT Policy Objectives

The main objective of ICT is to reduce costs in the provision of services by facilitating the proper use of technology whenever necessary in implementing the overall council objectives. This objective shall be achieved by hardly by:-

1. ICT Unit to work shoulder by shoulder with the Departments and Specified Units of our Councils by empowering their performance in all areas in which technology is required to improve or facilitate operation.
2. Providing advice, suggestions and comments on all technology aspect matters in various Units and Departments.
3. Facilitating the acquisition of computer equipment worthy in various departments through providing scientific advice on the equipment required where applicable.
4. Facilitating the stakeholders in the use of computers and the various systems of communication that are required in the relevant departments.

It's well argued that 'human potential in receiving urgent changes are limited because practices carries the most part of the character in a person's life', so implementation of these objectives shall typically depend on ICT perspective of stakeholders about usage of technology.

It should clearly be understood that each head of department, head of specified unit and section within the government has an obligation to preside usage of government digital information and electronic data in their respective fields. They should insure that there is security, confidentiality in performance and administration of government activities through use of information technology adhering statute, regulations and procedures given by government.

3.1 ICT Specific Objectives and Priorities

1. Insure achievement of Council priority of existence of shared infrastructure. This is to enable sophisticated performance considering the development of technology in this era.
2. Enabling performance of existing computer systems by creating favourable environment for it.
3. To insure desk help service to ICT users.
4. Insure that ICT is recognized in all aspects within the Councils as a means of convenience operation and service delivery.
5. To manage all communications systems by ensure that our systems are used appropriately in security manner.
6. To manage security for all ICT systems, Computer and data.
7. Insure availability of ICT office equipment's.
8. Insure reliable communication between offices within the district.
9. Facilitate proper usage of mailing systems in government communication in proper way.
10. Insure good governance by promoting transparency security to the community

3.2 The National ICT Policy

1. Provide a national framework that will enable ICT to contribute towards achieving national development goals; and
2. Transform Tanzania into a knowledge-based society through the application of ICT.

The policy articulates ten focus areas whose objectives, challenges and policy statements are detailed below. As already shown under Policy Context, the ten focus areas are drawn from the aspirations of Tanzania's Vision 2025. These areas should be interpreted, not as sequential steps, but as elements of a multi-dimensional space with numerous cross-cutting themes. This cross-cutting characteristic is one of the main reasons why a coherent over-arching ICT policy is urgently needed.

3.2.1 Strategic ICT Leadership

Tanzania's ICT environment is lacking a focused ownership and visionary leadership that takes into account the multi sectoral nature of ICT itself. Initiatives are fragmented, and sometimes duplicated, with loss of synergies and exploitation of economies of scale.

It is therefore imperative that efforts be applied to build oversight and leadership capability to bring cohesiveness to the ICT environment. Such leadership will also help ICT initiatives to be merged with national and sectoral priorities, and be in harmony with realities and expectations of stakeholders.

Leadership is also important in resourcing, creating an attractive environment for investors and consumers, identifying areas needing priority funding and support, and obtaining direct resources from either national or international sources for ICT initiatives. Consequently, leadership requires institutional development for organisations involved in ICT and for political and executive responsibilities to be assigned towards delivering this Policy.

Policy Objectives

The following are among the objectives pertaining to Strategic ICT leadership:

- ✚ Increase the use of ICT for equitable and sustainable socio-economic and cultural development of Tanzania.
- ✚ Raise the level of awareness on the role and potential of ICT.
- ✚ Create an authoritative national organization to effect, coordinate and review the ICT policy.
- ✚ Prioritise ICT investment in development assistance policies and programmes.
- ✚ Enhance synergy, economies of scale and productivity in all ICT matters.
- ✚ Create a favorable environment for cooperation and partnership in ICT among public and private sectors, civil society, and between all stakeholders at localnational, regional and international levels.
- ✚ Empower and facilitate Tanzania's participation in the Global Knowledge Society.

Policy Challenges

- ✚ Finding appropriate mechanisms for policy coordination.
- ✚ Creating awareness among leaders and the public, and political championing of ICT.
- ✚ Promoting ICT to further productivity among the sectors that are key drivers of the national economy.

- ✚ Prioritising of development assistance in ICT.
- ✚ Developing ICT sector parameters and indicators.
- ✚ Participation in global governance of ICT and the Internet.
- ✚ Creation of an environment conducive for effective ICT deployment.
- ✚ Addressing rural/urban imbalances.
- ✚ Promotion of regional integration and international cooperation.
- ✚ Promotion of more effective and increasingly broad-based national participation in international fora on Internet policy making and governance.

Policy Statements

- ✚ Since ICT is a powerful development facilitator, the Government will embrace ICT as an integral part of its development strategy and empower all citizens to use it to fight poverty, ignorance and disease so as to improve the quality of their lives.
- ✚ The Government shall create the necessary enabling environment to facilitate the deployment, utilisation and exploitation of ICT in all sectors of life.
- ✚ The Government shall annually allocate funds equivalent to a reasonable proportion of GDP for ICT deployment, diffusion and universal access.
- ✚ The Government shall promote the creation of bilateral relations and cooperation with regional and international organisations that generate, process, store and disseminate ICT driven information in order to expand and strengthen local ICT capacity.

- ✚ The Government will promote the development and/or acquisition of flexible standard information processing methods and facilities and oversee their utilisation by all users of ICT in the national network in order to effect or ensure compatibility.
- ✚ The Government will encourage public, private and community sector partnerships to jointly invest in ICT development.

3.2.2 ICT Infrastructure

Numerous forms of technological convergence are occurring. ICT infrastructure is also evolving, embracing the availability of equipment, supplies and services of computers, telecommunications, multimedia information providers, broadcasting (radio and television), and content. This raises many issues regarding interconnection policy and equipment standards for interconnectivity. It also means that, quality and quantity of network connections points must be evaluated together all the time. Additionally, the relevance of ICT infrastructure in developing countries must be associated with the availability of other essential services like electricity supply, basic economic services and social necessities that too often tend to be taken for granted.

In the process of disseminating infrastructure, considered choices must be made with respect to the evolving technology options that permit leapfrogging into optimal deployment strategies for the particular time and location, allowing sustainability, innovativeness and responsive service standards.

Policy Objectives

- ✚ Foster efficient, inter-operable, reliable and sustainable national ICT infrastructure commensurate with grass-root needs, and compliant with regional and international standards, with increasing access while reducing cost.
- ✚ Encourage regulatory organs to jointly investigate and respond to the challenges of convergence and newly emerging technologies, while drawing inputs from the general public and the key stakeholders.
- ✚ Establish mechanisms and participate in addressing new international policy and technical issues raised by ICTs new technologies and services.
- ✚ Foster the evolution of dynamic strategies that will address network security issues.
- ✚ Evolve regional Internet development policies and infrastructure.
- ✚ Establish mechanisms that will result in least cost access to bandwidth for institutions or individuals in Tanzania.
- ✚ Ensure all installed ICT infrastructure and capacity is utilized effectively and contributes to resilience and redundancy.

Policy Challenges

- ✚ Build an adequate ICT infrastructure.
- ✚ Address connectivity issues.
- ✚ Developing appropriate software plans and strategies.

- ✚ Promote convergence of voice, data, computing and video (for example multimedia services, VoIP).
- ✚ Mobilize strategic investments.
- ✚ Compliance with regional and international ICT infrastructure standards.
- ✚ Improve access to basic socio-economic and cultural services.
- ✚ Meet universal access obligations.

Policy Statements

- ✚ The Government will ensure that a reliable state of the art ICT infrastructure, of adequate capacity, high-speed and countrywide coverage is developed.
- ✚ The Government will support, through incentives and directives, bona fide institutions actively involved in the development and application of ICT.
- ✚ The Government will set up national IXPs and hierarchical IXPs, in collaboration with other countries as well as regional information and communications infrastructure.
- ✚ The Government will encourage appropriate lending mechanisms that foster a dynamic climate for entrepreneurs to venture into ICT and related sectors.
- ✚ The Government will encourage public and private sectors to explore various means of funding, including but not limited to loan finance, equity finance, incubation finance facilities, hire purchase finance, and grant finance for ICT development.

- ✚ The Government will seek to ensure all installed ICT infrastructure is utilised effectively, and is synchronized to contribute to resilience and redundancy on a national basis.

3.2.3 ICT Industry

It is obvious that the development of ICT cannot occur without the involvement of the private sector. Most ICT firms focus on serving urban centres whereas 80% of the population is in sparsely populated rural areas. Enticing the private sector to broaden their target markets will need the Government's support to make it economically viable to invest in small and dispersed markets. At the same time, our country needs to move from being mere consumers of the technology to the processes of being designers and manufacturers of ICT. This will also require Government support.

Tanzania's ICT industry needs to be encouraged towards experimentation and research, with the support of mentoring, venture capital and fiscal incentives, as small-scale start-ups and artisan enterprises are an essential component of a vibrant ICT sector. The education system needs to be oriented to emphasise entrepreneurial and professional skills. In addition to creating opportunities for acquiring technical competence in ICT, hybrid technical and commercial skills are very necessary in the sector.

The ICT industry will also need to gain a common voice to talk to the Government and articulate the industry's needs and concerns. This relationship with Government needs to be transformed from being focused mostly on taxes and tenders towards being more of a partnership for national development.

Policy Objectives

- ✚ Create a conducive environment for a vibrant and sustainable ICT industry in Tanzania that is aligned to national priorities.
- ✚ Contribute to efforts in making the country a competitive developer and producer of ICT products and services.
- ✚ Build direct relationships with the manufacturers and designers of ICT resources.
- ✚ Promote ICT culture, general awareness and political e-readiness in Tanzania.
- ✚ Provide accurate feedback to the Government on the impact of policies and measures that affect the ICT market, while informing and advising on future courses of actions.
- ✚ Guide the Tanzanian market on the full range of available options in terms of sourcing, licensing, upgrading and sustaining of ICT investments.
- ✚ Promote special package deals for micro-enterprises or for community organizations.
- ✚ Encourage multi-sectoral initiatives that apply ICT for poverty reduction, employment creation, and innovative entrepreneurship.

Policy Challenges

- ✚ Building capacity and culture for maintenance and after sales services.
- ✚ Increasing capacity of ICT project management.

- ✚ Improving availability and affordability of hardware and software solutions.
- ✚ Making available appropriate financing and fiscal mechanisms for ICT entrepreneurs.
- ✚ Promotion of ICT culture in Tanzania.
- ✚ Encouraging the involvement of the private sector.
- ✚ Development of local and open source software.
- ✚ Development of local content.
- ✚ Increasing in-sector networking and partnering.
- ✚ Addressing issues related to intellectual property rights.

Policy Statements

- ✚ The Government will promote, encourage and support research and development activities in the areas of ICT and strengthen the national capability to develop research programs and projects in the ICT field.
- ✚ The Government will nurture the emerging culture of innovation and entrepreneurship as an enabling environment for the growth and success of the ICT industry.
- ✚ The Government will foster the growth and technological sophistication of the ICT industry in order to support the extensive and innovative application of ICT and the export of competitive ICT products and services.

- ✚ The Government will encourage and support local institutions, in partnership with foreign owned multinational companies to establish production facilities, conduct research, and design as well as manufacture specialised ICT equipment locally.

3.2.4 Human Capital

Tanzania is not the only country with insufficient numbers of skilled and experienced experts in ICT and in other professions that rely on ICT. It is therefore necessary to view Tanzania's human capital needs in the global context. Hard choices must be made between importing needed skills, or slowly nurturing them within the country. Other choices are needed on the priorities of realigning the educational and vocational training pipelines to meet the needs of our labour markets.

In addition, there are new opportunities in applying ICT to enhance education, including curriculum development, teaching methodologies, simulation laboratories, life-long learning and distance education and for teaching of not only ICT, but of all subjects and specialisations. If embraced appropriately and supported at all levels, these could transform the country's human capital.

Policy Objectives

- ✚ Increase the size and quality of ICT-skilled human resource base in Tanzania.
- ✚ Expand and develop the teaching of ICT at all levels of the national system of formal and informal education and training.

- ✚ Use ICT to improve the quality of delivery of education and training in all areas including distance learning, as well as to enhance the learning experience itself.
- ✚ Expand and improve adult-education, life-long learning and both general and digital literacy programmes, notably for retraining and re-skilling the existing workforce.
- ✚ Encourage and support ICT training for political decision-makers, community and civil society leaders, as well as private and public sector executives.
- ✚ Give special attention to providing new learning and ICT access opportunities for women and youth, the disabled and disadvantaged, particularly disenfranchised and illiterate people, in order to address social inequities.
- ✚ Develop and deploy a nationwide e-Education system that supports schools, higher education/training facilities across the country by interconnecting them with each other and with relevant knowledge centres, providing curriculum integration while also generating information to better shape policies, strategic plans and tactical decisions for developing education and vocational training in Tanzania.
- ✚ To foster interest among Tanzanian Scientists to conduct research and development activities related to ICT.

Policy Challenges

- ✚ Boosting the number of dedicated and qualified ICT professionals.
- ✚ Refining the educational system.

- ✚ Developing appropriate attitudes, knowledge and skills for ICT initiatives.
- ✚ Integration of educational and vocational training opportunities.
- ✚ Creating appropriate employment and self-employment opportunities and related employment services for ICT and associated professions.
- ✚ Creating opportunities for developing multi-skilled operatives and hybrid managers.
- ✚ Evaluation and certification of “standard” ICT courses.
- ✚ Developing remuneration and incentives packages for ICT-skilled staff with focus on retention schemes for skilled workers and moving from “brain drain” to “brain gain”.
- ✚ Creating opportunities for job enrichment, productivity, enhancement or wealth creation through ICT.
- ✚ Creating conducive environment of research and development in ICT.

Policy Statements

- ✚ The Government will promote and support the development of qualified personnel for efficient policy-making, regulation and management of information resources and services including the education, training and retraining of ICT managers, professionals and other operatives.
- ✚ The Government will require the teaching of ICT at all levels of the national system of public and private education and training in order to increase the size and quality of ICT-skilled human resource base in the country.

- ✚ The Government will encourage and support formal and informal sectors to adhere to acceptable standards of examination and certification of ICT training programmes.
- ✚ The Government in collaboration with the private sector will develop and put in place appropriately designed schemes of service for different cadres of ICT personnel in order to secure their retention and encourage innovative behaviour.
- ✚ ICT deployment is to be especially inclusive and to proactively take into account gender and disadvantages groups.
- ✚ The Government will encourage activities relating to life long training processes both formal and informal.

3.2.5 Legal and Regulatory Framework

Globalisation and the pervasiveness of the Internet have given rise to new types of needs, rights and vulnerabilities. For secure electronic transactions to occur, an environment of trust must be created and sustained through the legal and regulatory apparatus. Cyber-criminals around the world are constantly seeking loopholes through which to perform illegal or illicit businesses. Any country that has inadequate cyber-law is essentially offering a safe-haven for cyber-criminals to act with impunity.

Tanzania needs to create and sustain a secure cyber-law environment, in addition to already existing legislation, before any significant new developments can emerge in ICT related services.

Policy Objectives

- ✚ Establish an enabling legal framework, aligned with Tanzania's constitutional provisions, legislative and regulatory environment, and consistent with regional and global best practices.
- ✚ Ensure that Tanzania does not become a haven of cyber-crime.

Policy Challenges

- ✚ Mould the present legal framework and related institutional infrastructure, as it is not yet conducive to ICT development and application.
- ✚ Address the inadequate regulatory capacity, especially in the face of convergence of networks and services.
- ✚ Enacting specific and effective legislative instruments on privacy, security, cyber crimes, ethical and moral conduct, encryption, digital signatures, copyrights, intellectual property rights and fair trade practices.
- ✚ Create capacity for research in ICT-related legal and regulatory issues.

Policy Statements

- ✚ The Government will review existing laws and regulations in order to repeal or adjust those that are not conducive to the healthy growth of the ICT industry and enact new ones that take account of issues associated with Internet Governance and the convergence of telecommunication, broadcasting and information systems.

- ✚ The Government will set-up legal regulatory frameworks that are appropriate to the ICT sector taking into account that electronic transactions are also susceptible to electronic criminality.
- ✚ The Government will have compelling interest in shielding contents inappropriate for minors or those that promote behaviour that might endanger minors and society.
- ✚ The Government will promote business in electronic form in a secure environment and put in place a legal framework to provide the guiding principles, rules and legislation.
- ✚ The Government will regularly carry out a review of policies and/or legislation in order to foster introduction of new services and technological innovation that will add value to the providers and end-customer of ICT enabled services.

3.2.6 Productive Sectors

Tanzania's GDP is heavily dependent on agricultural production, while mining and tourism are emerging rapidly. In all sectors, production is both from numerous small-scale artisanal producers as well as from a handful of multinational conglomerates. Each group of producers has its own ICT requirements, but so far not much has been done to facilitate access to the advantages of ICT for small-scale producers — either directly or through appropriate intermediaries.

Policy Objectives

- ✚ Contribute to the reduction of poverty and improve the quality of life of Tanzanians.
- ✚ Foster enterprise, entrepreneurship and innovativeness for sustainable socio-economic and cultural development.
- ✚ Create a favourable climate for industry, business and investment to adopt ICT solutions.
- ✚ Develop and deploy a nationwide ICT system to support farmers, traders and extension workers in remote areas.
- ✚ Ensure that private and public development plans and projects in all sectors incorporate appropriate ICT.
- ✚ Avoid the adverse effects of globalisation, particularly the “hollowing-out” of local industries and tax revenues.

Policy Challenges

- ✚ Coordination of trade links and e-markets.
- ✚ Facilitation of resource allocation, and delivery.
- ✚ Enhancement of productivity (especially in agriculture, industry and mining).
- ✚ Making available relevant information such as weather, and other climatic trends.
- ✚ Developing better methods of management of land and water resources.

- ✚ Our local industries working within the new global economy being exposed to the attendant risks of globalisation.

Policy Statements

- ✚ The Government will encourage all productive sectors to incorporate ICT in their development plans.
- ✚ The Government will encourage, promote and support the implementation of nation-wide ICT systems for rural development activities, agricultural, horticultural and livestock extension for farmers, career guidance for youth, technology guidance for rural enterprises, micro-level planning, etc. Communities and user groups or beneficiaries shall be actively encouraged to participate in all such activities.
- ✚ The Government will take steps to move Tanzania's economy into line with the new global economy while minimising the adverse effects of globalisation on the local economy and tax revenues.

3.2.7 Service Sectors

It is undeniable that all forms of public utilities and services in Tanzania can be significantly improved and expanded by embracing ICT. On one hand, the management and internal processes towards availing those services may be strengthened by investing in the appropriate use of office systems to support internal information flows, leading to greater accuracy and timeliness of executive decision-making, resource allocation, risk management and operational control. On the other hand, the use of ICT as part of the service

delivery channel can lead to qualitative improvements for the direct benefit of clients. In some cases the client may interact directly with an ICT interface, like the increasing number of ATMs at banks that offer end-users services for 24 hours a day, 7 days a week, 365 days a year. In other cases the client interacts with intermediaries, like at air-travel agencies where travellers interact with an employee who then interfaces with ICT to book seats and sell tickets on international flights, even from towns without any airport.

A distinctiveness of the Service Sectors is that they also include the educational and vocational training sector, which is a cornerstone for development in all sectors as well as for progressing toward a knowledge-based environment. While this policy contains a specific focus area on Human Capital (see paragraph 3.4 above), the educational and vocational training sector is nonetheless also contextualised among the services that are to be generically addressed within the present focus area. This intended overlap offers a broader range of implementation options for that particular sector in view of its intense underlying criticality and its crosscutting nature.

Policy Objectives

- ✚ Establish an environment conducive for e-commerce transactions and competition.
- ✚ Encourage more usage of ICT in financial services (banking, insurance, etc).
- ✚ Promote the use of ICT to enhance efficiency, effectiveness and continuity in the provision of services and basic utilities from both private and public sectors especially in billing and payment systems.

- ✚ Develop and deploy a nationwide e-Health system that supports medical facilities in the under-served areas.
- ✚ Develop and deploy a nationwide e-Tourism system.
- ✚ Encourage cyber-café owners to diversify their enterprises in order to build multiple revenue streams.

Policy Challenges

- ✚ Developing and accessing market information.
- ✚ Modernization of management systems and practices.
- ✚ Introducing ICT supported access to health and nutrition services.
- ✚ Taming the prevalence of HIV/AIDS and other infectious and communicable diseases.
- ✚ Managing proactive health care systems for preventive and curative services.
- ✚ Matching Management Information Systems and ICT in the financial institutions including banking, insurance and capital markets.
- ✚ Introducing Management Information Systems and ICT in the education, training and tertiary academic sectors for all fields of study.
- ✚ Developing Management Information Systems and ICT in providing topical support and extension services to peasant producers and their communities in isolated rural areas.
- ✚ Deployment of service quality improvement methodologies and standards.
- ✚ Improving tourism marketing and management (domestic and international).

- ✚ Promotion of new postal communications services through the use of ICT.

Policy Statements

- ✚ The Government will promote the use of ICT to enhance efficiency effectiveness and sustainability in the provision of services and basic utilities by supporting the development and deployment of nationwide e-health, e-tourism, e-education and e-commerce transactions.
- ✚ The Government will promote, stimulate and encourage the use of ICT to improve the provision of safe, comfortable and seamless transport infrastructure and services, both countrywide and linking Tanzania to the rest of the world.
- ✚ The Government will also use both formal and non-formal channels to disseminate information about the application and advantages to communities of the use of ICT.
- ✚ The Government will work with the private sector, organisations of civil society and other partners to promote, stimulate and encourage the use of ICT, in combination with traditional methods, to preserve and add value to national artistic and cultural patrimony.

3.2.8 Public Service

Since the mid-1990's, the public service of Tanzania has initiated a series of measures for transforming itself into becoming more efficient, effective, and customer-oriented. These efforts have put in place the foundations for what is now known as e-Government, while sectoral reforms recognise and promote

the use of ICT in their respective sectors. Furthermore the Government collects and holds vast amounts of locally relevant information that may be converted onto electronic media for better preservation and cheaper accessibility by the public. Such information includes legislation, regulations, procedures, forms, maps, research papers, and numerous statistics, which may be sold or shared free of charge as appropriate. Moreover, the Government's own policy-making, monitoring and decision-support processes can be greatly enhanced as access to authoritative, timely and accurate data becomes more widespread, and is coupled to enhanced knowledge-sharing internally within the public service.

As the country's biggest employer, the public sector's recruitment standards will necessarily influence the national labour market and the curricula of education and training institutions, whereby if ICT competencies permeate the public sector's recruitment requirements, then the other sectors will benefit too. For these reasons, the Public Service requires a specific emphasis in the National ICT Policy.

Policy Objectives:

- ✚ Help increase the productivity of both the public and private sectors, by achieving the Government's intention to be a model user of ICT.
- ✚ Empower the public by building an e-Government platform that facilitates their relationship and interactions with the Government, and enhances the range and delivery of more effective public services at both central and local levels, while also generating accurate and timely information to better shape policies, strategic plans and tactical decisions for developing and enhancing the delivery of affordable public services.

- ✚ Promote good corporate and public governance by furthering information sharing, transparency and accountability.
- ✚ Enable public services to contribute meaningfully in achieving poverty reduction targets, in accordance to the priorities of the national Poverty Reduction Strategy Paper (PRSP).
- ✚ Enhance public participation.

Policy Challenges

- ✚ Increasing productivity (efficiency, effectiveness and continuity) of the public service.
- ✚ Creating an e-governance environment responsive to the needs of the citizens.
- ✚ Improving accessibility and affordability of public services to the citizens, wherever they are.
- ✚ Building efficient communications and knowledge sharing within the public service.
- ✚ Setting up harmonised information banks with uniform, consistent, up to date, and secure data and management systems.
- ✚ Increasing the ICT awareness, knowledge and skills of public servants.
- ✚ Introducing operational processes and institutional structures that are amenable to ICT application and deployment.
- ✚ The capture, preservation, and dissemination of relevant government records and archives, and their potential use as multimedia content of significant local relevance.

- ✚ Establishing safeguards on data systems to protect the privacy of individuals whose personal data is held, and the confidentiality of information about entities and activities as relevant.

Policy Statements

- ✚ The Government will be a model user of ICT by deploying ICT systems within the public administration itself to improve efficiency, reduce wastage of resources, enhance planning, raise the quality of services and access global resources.
- ✚ The Government will support the application of ICT to promote good governance, transparency and accountability, and awareness of the implications of long-term ICT investment and total cost of ownership
- ✚ The Government will deploy ICT extensively to strengthen law enforcement, security and national defence capability.
- ✚ The Government will deploy ICT to monitor and respond to environmental disasters and to collect and disseminate information on environmental problems.
- ✚ The Government will review its operational processes and institutional structures with a view to making them amenable to ICT application and deployment.

3.2.9 Local Content

One of the strengths of ICT is the way it can help unlock distant expertise, knowledge and markets. However, this access has its limitations. Easier access to global knowledge is rapidly turning many developing countries into consumers of distant and potentially irrelevant information. Developing countries are being invaded by foreign ideas and values that may undermine or overwhelm local cultural heritage and economic livelihood. If serious efforts about the use of ICT as an empowerment tool are to be made, then this foreign content must always be matched by the expression, collection and dissemination of local knowledge and content that is relevant to local situations. ICT needs to be a conveyor of locally relevant messages and information, providing opportunities for local people to interact and communicate with each other, expressing their own ideas, knowledge, heritage and culture in their own languages. Local content should also be perceived as a driver for local job and wealth creation.

Policy Objectives

- ✚ Support the local creation and development of ICT applications and multi-media content for productivity, as well as for social interactions, culture and entertainment.
- ✚ Encourage the development of local content aimed at enhancing the understanding of prevailing topical issues and promoting tolerance of differing interpretations thereof.

- ✚ Promote the use of schools in developing and sustaining local multi-media content.
- ✚ Encourage the development of content for preserving the values, wisdom and acquired knowledge of our traditional communities and cultures.
- ✚ Promote the development of local content to support e- activities.

Policy Challenges

- ✚ Building a national gateway as the focal point for locally generated content.
- ✚ Repackaging traditions, cultures, indigenous knowledge, and traditional wisdom arts as potential multimedia content.
- ✚ Availability of government-generated content (forms, procedural guidelines, etc).
- ✚ Promotion of electronic publishing of local materials.
- ✚ Wider dissemination of materials held in libraries and archives.
- ✚ Using the Kiswahili language for content creation.
- ✚ Promotion of e-communities, and discussion groups.
- ✚ Promotion of community participation in initiatives for compiling local content.
- ✚ Popularity of inappropriate uses of ICT detrimental to our values, ethics and culture, for example viewing pornography on the Internet.

Policy Statements

- ✚ The Government will promote the use of the ICT for preserving and dissemination of indigenous knowledge and traditional cultures.
- ✚ The Government will allow appropriate access to its archives and other information sources as a basis for developing local content.
- ✚ The Government will encourage the wider use of Kiswahili in developing local content in order to promote local culture, attract local end users as well as the Tanzanian diaspora.
- ✚ The Government will seek to discourage inappropriate use of ICT that is detrimental to our cultural values, ethics, mores, and morality such as viewing pornography.

3.2.10 Universal Access

The digital-divide can be summarised as a difference between people who can utilize and participate in the information revolution, and those who are not able to access the key production tools of the new information age, therefore being denied opportunities from not having information or knowledge. This problem of exclusion exists within both developed and developing countries, as well as between developed and developing countries.

To ensure that the national ICT policy does not exacerbate the digital divide among the people of Tanzania, it must contain provision for bringing access to the more remote areas of the country and those under served in urban areas.

Many universal access initiatives are currently occurring across Tanzania, but each is quite independent and no focal point exists for sharing resources and

experience. To further reduce isolation, such initiatives need to be able to stimulate grass roots networking among themselves and with counterpart projects in other countries. This will also enable the services that are being deployed to reach a broader audience and to be enriched by being exposed to additional technical experts. Therefore the National ICT Policy is placing specific emphasis on Universal Access.

Policy Objectives

- ✚ Promote literacy as a platform for digital competencies, awareness and empowerment, while building universal access and broad availability of opportunities in Tanzania;
- ✚ Provide citizens with universal access to ICT in order to improve their productivity and to broaden their opportunities for knowledge sharing and for generating local content;
- ✚ Provide special incentives for investors to deliver broadband connectivity to hitherto disenfranchised and isolated populations in the country;
- ✚ Encourage the use of existing community access points by schools and other learning institutions as part of their curricula and facilitate the construction of such access points within, or in easy reach of, their premises;
- ✚ Build awareness that investment in and through ICT in remote areas is a potent means of reducing the cost of rural-urban transactions; and
- ✚ Facilitate the creation of grass-roots networks for wealth-creation through trade, both within the country and internationally.

- ✚ Operationalise the Rural Telecommunications Development Fund.

Policy Challenges

- ✚ Increasing ICT capacity in terms of bandwidth and the penetration of services.
- ✚ Leveraging of community access points for provision of smart services.
- ✚ Improving coverage of functional utilities that go hand in hand with ICT.
- ✚ Developing locally relevant content that attracts users and adds value to their daily lives.
- ✚ Providing affordable access to ICT.
- ✚ Integrating ICT within lifestyles and cultures.
- ✚ Bringing awareness of benefits of ICT access and training to the public.
- ✚ Developing peer-to-peer networking and knowledge sharing at grassroots level.
- ✚ Encouraging partnerships among public, private and community sectors at all levels in support of universal access initiatives.
- ✚ Creating incentives for service providers to deploy services in rural and underserved areas as well as disadvantaged groups.

Policy Statements

- ✚ The Government will strive to reduce the ICT access gap between the rural and the urban areas by activating the Rural Telecommunication

Development Fund, offering special incentives to investors in rural ICT provisions, supporting the construction of rural telecentres and involving local government authorities in ICT utilization and promotion.

- ✚ The Government will continue to look into ways of reducing taxes on ICT related goods and services to make them affordable and accessible to more citizens.
- ✚ The Government will encourage financial institutions to give particular support to investors in rural ICT services.
- ✚ The Government will encourage and facilitate the optimal use of existing ICT capacity and infrastructure in order to extend affordable access nationally, and especially in rural and disadvantaged communities.
- ✚ The Government will encourage allocation of extra capacity in telecommunication infrastructure to be used efficiently and economically for the national development of ICT.

4. FRAMEWORK FOR POLICY IMPLEMENTATION AND MONITORING

4.1 Computer Usage Regulations

For safety normal usage of Computers, there are some regulations and ethics to be adhered. Besides the local standards of Kakonko District Council, the Regulation of proper, Safety and Good usage of ICT devices in the government provided by President's Office, Human Resource Management of July 2012 has been included.

The following has to be adhered by government Officers of kakonko District Council who performs their duties by using Computers:-

- 4.1.1 Make sure your personal Computer has strong password. This improved data security and Non-repudiation. You are also advised to change your password regularly.
- 4.1.2 It's eligible for computer user to insure that the computer has active Antivirus, Antispyware and personal firewall that should be always turned on.
- 4.1.3 Computer hardware and Computer programs maintenance and programming has to be done through ICT Unity guidance. Misbehaviour of computer shall be reported to ICT Unit for support, maintenance and advice.
- 4.1.4 Depends on user requirements ICT officer shall advice on *peripheral devices* required for the computer to perform required task.
- 4.1.5 The officer who is using his own computer to perform his professional work shall be affected by these polices.

4.2 Removable Computer Storage Devices usage Regulation

- 4.2.1 Removable storage devices that are used as a backup such as external Hard disks and DVD's shall be kept in secure place in the Office.
- 4.2.2 Removable devices used for purpose of sharing digital information's between computer users such as flash disks, memory card and floppy disks shall be empty always. After transferring data user has to delete all government information's from the drive.
- 4.2.3 External devices user has to insure Computer Security by scanning external device when connecting it to the computer. If the security software's installed are not updated its advised to deny using external devises.

4.3 Computer devices hygiene and protection

- 4.3.1 The computer has to be protected from dusts, water and physical breakage.
- 4.3.2 Clean your computer regularly with dry and soft cloth.
- 4.3.3 Protect your computer from electric short by connecting it to UPS connected to Stabilizer.

4.4 Printers Fax and Photocopy machines

- 4.4.1 Most of current photocopy machines, scanner and fax machines have the memory which enable them to store some information's for their performance. It's insecure to trust usage of these devices without precautions. Random usage of such devices can result into dispersal of information. The council shall specify the stationary

where all emergency works shall be done. It shall take an obligation of insuring purchase of these facilities so that all electronic data are processed, produced and transferred through organisation electronic equipment's.

4.4.2 All emergency data procession and dissemination by using public instruments or public stationaries shall be guided by ICT Officer who shall insure government information secrecy.

4.4.3 Since all ICT systems and equipment's are controlled by ICT Unit, there have to be constant communication between departments, units and ICT units for advice, desk help department of ICT Unit for professional advice, regulations specification and advice for the need of installing the new systems.

4.5 Computer maintenance

The computer has the memory and the storage device that stores data long. However the data can be deleted its scientifically clear that through the use of modern software's deleted data from hard disk can be restored. Because of such fact it is forbidden to make computer repair to venders outside the district council premises. In addition to that it is advised that where inevitable the storage disks and memory should be removed from the computer before it is submitted to venders.

4.6 Selling of Computer

When the council proves that has devises has no functionality in the government any longer, it usually arrange procedure for selling it either through auction.

The computer can be sold but it should be clearly known that such computer has to be given new computer Hard disk. Either the computer to be sold should be removed their Hard disks. The data within computer should be retained in the council.

4.7 Disposal of computer storage devices

When the district council deems to dispose some of computer memory and disk devices that can no more be repaired or their devices has been sold and yet have been used to store government information and data. Such devices should be submitted to the department of Circular letters and Records of government of Presidents Office, Human Recourses Management.

4.8 Conclusion

Because of the complicated nature of ICT issues and the factors that impact on them, the implementation of this policy, and the consequent achievement of its goals and objectives will be the responsibility of the entire government at all levels and in all sectors, working in close partnership with the private sector and civil society.

There is therefore a need for the active participation and involvement of all individuals and institutions with strong commitment on the part of the political leadership of all kinds and at all levels.

In order to effectively coordinate and harmonize efforts and activities undertaken by many institutions in different locations, there is a need to put a mechanism in place which will ensure that the policy is updated from time to

time and that implementation, strategies and plans are drawn and carried out in the most efficient and effective manner.

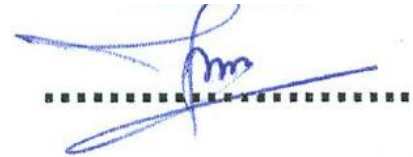
The final goal should be the deployment of ICT in all sectors of the economy and to communities in our district and our country at large.

Approved by;-



Jaina S. Msangi,
District Executive Director,

KAKONKO.



Hon. Juma Maganga,
District Council Chairperson,

KAKONKO.