



# **The Inter-University Council for East Africa**

## **INFORMATION AND COMMUNICATION TECHNOLOGY POLICY PLAN**

**(2009/10 – 2014/15)**

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**IUCEA Secretariat**

**March 2009**

# **Foreword**

**(by Governing Board Chairman)**

# Acknowledgements

The journey to the IUCEA ICT Policy Plan started way back in 2006 when the IUCEA embarked on the process of formulating its strategic plan for the year 2006/07-2010/11. Within this plan, a number of areas were identified in which the IUCEA could intervene on behalf of member universities through the application of ICT. Following this, a meeting bringing together ICT and library experts from all the IUCEA member universities was held in Jinja, Uganda in August 27 – 29 2007, where an *ICT Steering Committee* was formed. Among the areas of focus during this meeting was the need to harmonize ICT policies for higher education in the region that would eventually result in the development of an ICT policy for the IUCEA. The Steering Committee held its first meeting in May 2008, where key project areas were identified in which the IUCEA could intervene on behalf of members.

In June – July 2008, a field survey on the current ICT status of the IUCEA member universities was conducted, with the aim of providing background information for a stakeholders' workshop that was held in Dar es Salaam in January 2009, to discuss the ICT policy process, with delegates drawn from members of the ICT Steering Committee plus other experts selected from member universities in the five East African Partner States. The premise was that extensive consultations among stakeholders would help build consensus among the very diverse actors involved and overcome constraints that often forestall policy processes. This regional forum discussed the background information on the status of development and application of ICT in the region's higher education and identified an institutional framework and the key policy issues that needed to be addressed within the IUCEA policy document.

During the stakeholders' workshop, a regional *ICT Policy Taskforce* was set up to spearhead and oversee the formulation of the ICT Policy for the IUCEA. This taskforce met in Kampala on February 25 – 27 and came up with the first draft of the policy document. This draft was circulated to all staff at the IUCEA Secretariat for their further input, and a copy submitted to the IUCEA Governing Board members during a meeting held in Mombasa, Kenya (March 10 – 17 2009).

I want to thank all those who have made it possible to come up with this document – members of the *ICT Steering Committee* and the *Taskforce*, the IUCEA ICT staff, and all the other stakeholders who participated in the workshops and/or volunteered vital information during the data collection process.

**Prof Chacha Nyaigotti-chacha**  
Executive Secretary

## **EXECUTIVE SUMMARY**

The objective of the IUCEA is to facilitate contact between the universities of East Africa, provide a forum for discussion on a wide range of academic and other matters relating to higher education, and help maintain high and comparable academic standards. Its mission is to coordinate and facilitate stakeholders so as to promote strategic, sustainable and competitive development of the higher education sector in East Africa.

The IUCEA initiated a process to develop an ICT Policy Plan that would guide it in the use of these technologies to enhance the achievement of its core mandate based on its 5-year Rolling Strategic Plan 2006/2011. The purpose of this policy is to guide proper development and deployment of ICT at the IUCEA, addressing its key functional areas both at the internal and external levels. The policy articulates various focus areas whose *issues, objectives and policy statements* are detailed.

In summary, policy statements are available in the following focus areas:

### **i) ICT Management, Control and Maintenance**

- The IUCEA shall establish a vibrant department responsible for management, control and maintenance of ICT resources.
- The IUCEA shall ensure sustainable management of the implementation of its ICT policy by creating an *ICT Strategy Committee*, made up of ICT experts from universities in East Africa, whose mandate will be to guide and oversee implementation of this policy.
- The IUCEA shall provide for the growth and financial sustainability of its ICT resources, seeking the necessary funding and establishing the appropriate operational mechanisms.

### **ii) Data Communication Infrastructure and Internet Services**

- The IUCEA shall continue to improve its institution-wide data communication network parallel to current advancements in technology in order to ensure smooth service provision to stakeholders.
- The IUCEA shall facilitate the development of a data communication infrastructure linking member institutions with each other.
- The IUCEA shall explore viable approaches to reduce bandwidth costs for institutions of higher learning in East Africa.
- The IUCEA shall facilitate the creation of consortia for large volume procurements of ICT infrastructure.

### **iii) Management Information Systems**

- The IUCEA shall enhance and streamline integrated management information systems for the provision of the following services within the secretariat: finance, human resources, projects, documents and records.
- The IUCEA shall promote the adoption of integrated management systems in its member institutions covering aspects such as finance, human resources,

projects, documents and records, academic services (student records, admission and registration, fees and debt collection, timetabling, exams, transcripts), research, library, e-learning and hostels.

**iv) ICT Security Management**

- The IUCEA shall put in place a proper ICT security policy and procedures, based on ICT risk assessment.
- The IUCEA shall put in place proper business continuity and disaster recovery plan and mechanism.

**v) e-Resources**

- The IUCEA shall establish a state-of-the-art Information Resource Centre (IRC) within the Secretariat.
- The IUCEA shall establish and manage online information resources (e-library, e-journals, meta- search engine to query library resources of member institutions, etc) for supporting member institutions in their teaching, research and public service.
- The IUCEA shall facilitate member institutions to access national and international databases and publications.
- The IUCEA shall develop and maintain a regional repository for maintaining digital copies/references of theses, dissertations and other grey literature as the focal point for locally generated content.
- The IUCEA shall gather and provide access to useful information about members through the implementation of an East African Universities Directory (EAUD).

**vi) ICT in Education**

- The IUCEA shall promote the utilization of ICT as a tool for teaching, learning and research.
- The IUCEA shall promote best practices in e-learning, distance education and virtual university systems within the universities in East Africa.
- The IUCEA shall promote the use of common e-learning management platforms and sharing of content.
- The IUCEA shall promote the application of distance education/virtual university systems in East Africa in order to widen access to higher education, especially to traditionally marginalized groups.
- The IUCEA shall facilitate the development of a reusable learning objects repository for the purposes of sharing content.

**vii) Promotion of Resource Sharing and Collaboration**

- The IUCEA shall develop a database of resources that are available within the various universities that may be shared.
- The IUCEA shall put in place a formalized framework for resource sharing and collaboration amongst universities in East Africa.

**viii) Publicity and Marketing**

- The IUCEA shall ensure the development and maintenance of a state-of-the-art website for effective publicity and marketing of the Council through the establishment and maintenance of linkages between universities and other higher education stakeholders
- The IUCEA shall encourage Member Universities to develop their own websites and maintaining them regularly.

**ix) ICT Skills Development**

- The IUCEA shall ensure and require that all staff are trained on a continuing basis to equip them with the requisite skills to fully exploit the ICT environment in their different functions.
- The IUCEA shall undertake the mapping of ICT skills, ICT curriculum, qualifications, and other pre-requisites to guide current and prospective employees, academia, employment counsellors, and the industry.
- The IUCEA shall establish an electronic directory of ICT human resource capacity amongst universities in East Africa.
- The IUCEA shall facilitate the development and implementation of training programmes in ICT to address strategic needs of member universities.

**x) Quality Assurance in ICT**

- The IUCEA shall put in place formalised methods to assess the quality of ICT resources and services.
- The IUCEA shall advocate for conformity to best practices in acquiring, management, control, maintenance and disposal of ICT.
- The IUCEA shall put in place formalised methods for assessing the quality of information resources and services.

A mechanism will be put in place to translate this policy document into an action plan that can guide implementation in a more detailed and prioritised way. A monitoring and evaluation framework will be put in place in order to ensure the effective implementation of activities, supervised by an *ICT Strategy Committee*. The policy will be reviewed every three years. The IUCEA will seek funding from Partner States, Development Partners, and other relevant sources in order to facilitate the implementation of the activities considered within this policy document.

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# 1 INTRODUCTION

With the world moving rapidly into digital media and information, the role of information and communication technology (ICT) in education is becoming more and more important, and this importance is expected to continue growing and developing in the 21<sup>st</sup> century. The transformation of higher education must be coupled with the effective application of ICT in teaching, learning, research and innovation, as well as the administration of the academic institutions. It is with this observation in mind that the Inter-University Council for East Africa (IUCEA) initiated a process to develop an ICT Policy Plan that would guide it in the use of these technologies to enhance the achievement of its core mandate based on its 5-year strategic plan. This Policy is founded on the IUCEA strategic goals, objectives and aspirations as expressed in its Rolling Strategic Plan 2006/2011.

## 1.1 Background

In recognition of the role of higher education in the region, the East African Partner States established the IUCEA with the objective of facilitating contact between the universities of East Africa, providing a forum for discussion on a wide range of academic and other matters relating to higher education, and helping maintain high and comparable academic standards. The mission of the IUCEA is to coordinate and facilitate stakeholders so as to promote strategic, sustainable and competitive development of the higher education sector in East Africa.

The integration of ICT into teaching, learning, research, and information dissemination and management activities in tertiary education has been a priority issue in African higher education institutions for a number of years. In East Africa, ICT has begun to have a significant presence in education, although the impact has not been as extensive as in other fields. Each of the East African Partner States, as well as individual universities within the region, are currently exploring ways in which the use of information technology can be mainstreamed across the higher education sector.

The demand for university education in East Africa remains very high and enrolment continues to grow at a very fast rate, especially within the privately sponsored students' programmes. This growth means that the role and mandate of the IUCEA is expanding rapidly and hence the need to look into ways of effectively and efficiently meeting the expectations of its stakeholders. ICT can

greatly contribute to addressing the upcoming educational challenges. The use of ICT, therefore, will continue to be important, and this importance can be further enhanced and harmonised through proper management of these technologies. Consequently, the need to guide proper deployment of ICT at the IUCEA has necessitated the need for a comprehensive and forward-looking ICT policy, which creates an enabling framework.

## 1.2 SWOC Analysis

The countries of East Africa have made remarkable progress in the integration of ICT in service provision. The past few years witnessed a host of activities aimed at injecting ICT in the region's education sector. The table below identifies some of the strengths, weaknesses, opportunities and challenges within the IUCEA in its endeavor to mainstream ICT use within Higher Education.

| <b>Strengths:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>Weaknesses:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• Existence of National ICT Policies within each of the East African Partner States</li> <li>• Existence of ICT-for-education policies in most countries</li> <li>• Growing ICT expertise in the region</li> <li>• Widening of training opportunities in ICT</li> <li>• Existence of frameworks for collaboration amongst East African Partner States and amongst universities e.g. through EAC, IUCEA, etc</li> <li>• Continued/guaranteed financial and other support to IUCEA activities</li> </ul> | <ul style="list-style-type: none"> <li>• Weak ICT infrastructures at the IUCEA and member universities</li> <li>• High bandwidth costs</li> <li>• Unstable and unreliable electricity supply in many parts of East Africa</li> <li>• Lack of integrated MIS at the IUCEA and in member universities</li> <li>• Low student-computer ratio in most universities</li> <li>• Inadequate access to university library catalogs over the internet (web-based OPACs)</li> <li>• Inadequate web presence of universities in the region</li> <li>• Inadequate visibility and access to local content from the region</li> <li>• Lack of adequate capacity to manage, control and maintain ICT at the IUCEA and most member universities</li> <li>• Inability to share information resources amongst universities</li> <li>• Absence of inter-university connectivity nationally and regionally</li> <li>• Inadequate information resources in most universities</li> <li>• Lack of current information resources</li> </ul> |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Opportunities:</b></p> <ul style="list-style-type: none"> <li>• Upcoming implementation of fiber optic cable infrastructure within the Partner States</li> <li>• Landing of marine cables in the East African coasts</li> <li>• Proliferation of new technologies that are promising to drastically lower the cost of entry and ownership of ICT in educational institutions e.g. recent implementation of new wireless technologies with wide coverage</li> <li>• Existence of well-established ICT departments/faculties in some universities in the region</li> <li>• Availability of mature open source applications</li> <li>• Advancement of ICT applications in some of the universities</li> <li>• Availability of national education research networks</li> <li>• Goodwill from donors to finance ICT projects</li> <li>• Recent creation of government bodies in charge of ICT (ministries, boards, etc)</li> <li>• Enthusiasm to use e-learning and other modes of open and distance learning</li> <li>• Availability of non-digitized information resources within the region</li> <li>• Government incentives on ICT e.g. tax waiver on computers</li> <li>• Liberalization of the telecommunication sectors</li> <li>• High demand for higher education</li> <li>• Increased interest in automating library operations and services</li> </ul> | <p><b>Challenges:</b></p> <ul style="list-style-type: none"> <li>• Inadequate budget allocation for ICT</li> <li>• Lack of understanding of the importance of ICT by senior management</li> <li>• Lack of representation of ICT department within the highest management levels at the IUCEA and member universities</li> <li>• Different systems of education followed by Partner States</li> <li>• Over-reliance on external digital repositories and other information sources</li> <li>• Over-reliance on external funding for ICT activities</li> <li>• Inadequate budget allocation for information resources</li> </ul> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### 1.3 Policy Vision and Mission

#### Vision

The IUCEA ICT Policy is aligned to the following vision statement:

**The IUCEA becomes a centre of excellence in promoting the application of ICT for the strategic development and management of higher education in East Africa.**

## **Mission**

The overall mission of this Policy is:

**To enhance the capacity of the IUCEA in utilizing ICT in the coordination and facilitation of stakeholders to promote strategic, sustainable and competitive development of the higher education sector in East Africa.**

### **1.4 Rationale**

In 2006, the IUCEA developed two key documents – a *10-year Perspective Plan (2006/2015)* and a *5-year Rolling Strategic Plan (2006/2011)* – the aim of which was to strategically position itself for the challenges facing higher education in the 21<sup>st</sup> century. The purpose of these documents is to transform the Council into an effective regional advocate and catalyst for the strategic development and management of higher education in East Africa. The strategic plan identifies “the application of ICT and networking as one of the strategic objectives that would enable the IUCEA to provide an effective strategic support to member universities in their teaching, research and public service roles.” The IUCEA is thus challenged to promote and assist member universities in taking advantage of the emerging ICT in the delivery of higher education and services.

The crosscutting nature of ICT can be seen from how it permeates into all the three core functions identified within the strategic plans:

- i) *Facilitation of the strategic development of member universities:* To collect, classify and disseminate information on higher education and research, particularly in East Africa.
- ii) *Coordination of inter-university cooperation:* To strengthen regional communications through electronic networks which link member universities together and provide a link to relevant sites in East Africa and the world.
- iii) *Quality assurance:* To promote the development and application of harmonized higher education quality assurance framework in order to ensure that teaching and research achieve and maintain international standards.

### **1.5 Purpose and Scope**

A well-defined and owned ICT policy is a pre-requisite to successful implementation of ICT activities in any organisation. The purpose of this policy is to guide proper development and deployment of ICT at the IUCEA. It is a reflection of the IUCEA strategic goals, objectives and aspirations as expressed in its Rolling Strategic Plan 2006/2011.

At the IUCEA, functional areas for ICT application can be identified at two levels: internal and external. Internal activities are those that are relevant to the proper operations at the Secretariat, i.e. those activities that will enable the Secretariat to operate at the optimum level. External activities refer to those services provided by the IUCEA to member universities, and this forms the bulk of the ICT activities.

The activities identified include ICT Management, Control and Maintenance; development and deployment of appropriate data communication infrastructure and Internet services; establishment of integrated management information systems, and ICT security management. Others include ICT skills development; publicity and marketing, e-resources, ICT in education, quality assurance for ICT; and the promotion of resource sharing and collaboration.

This policy will provide guidance that will enable ICT to contribute towards achieving core goals of the IUCEA.

## 2 KEY POLICY ISSUES, OBJECTIVES AND STATEMENTS

The policy articulates various focus areas whose *issues*, *objectives* and *policy statements* are detailed in this section. These focus areas should be interpreted, not as sequential steps, but as elements of a multi-dimensional space with numerous crosscutting themes.

### 2.1 ICT Management, Control and Maintenance

#### 2.1.1 Issues

- The need for a vibrant centrally organised, service-oriented ICT department, to be in charge of the policy implementation process including management, control and maintenance of the internal installation, the common ICT systems, and end-user support.
- The need to have ICT addressed at the highest levels of management at the IUCEA, due to its key role at the Council and its crosscutting nature.

#### 2.1.2 Policy Objectives

- To ensure that the IUCEA ICT resources are managed and maintained efficiently for support of its goals;
- To ensure that ICT is given its due attention as a core resource for service provision at the IUCEA;
- To ensure that ICT projects involving member institutions are given due attention and support.

#### 2.1.3 Policy Statements

- The IUCEA shall establish a vibrant department responsible for management, control and maintenance of ICT resources.
- The IUCEA shall ensure sustainable management of the implementation of its ICT policy by creating an *ICT Strategy Committee*, made up of ICT experts from universities in East Africa, whose mandate will be to guide and oversee implementation of this policy.
- The IUCEA shall provide for the growth and financial sustainability of its ICT resources, seeking the necessary funding and establishing the appropriate operational mechanisms.

## **2.2 Data Communication Infrastructure and Internet Services**

### **2.2.1 Issues**

- Existing data communication infrastructure at the IUCEA Secretariat and member universities is inadequate for meeting their institutional goals.
- Lack of inter-connectivity amongst the IUCEA member universities.
- High cost of bandwidth for member institutions, hence limited capacity, leading to high inefficiencies in all operations that need access to the Internet services such as e-learning, research, communications, and regional as well as global market reach.

### **2.2.2 Policy Objectives**

- To promote the development and deployment of suitable data communication infrastructure within the IUCEA Secretariat and member universities;
- To ensure availability of common office applications such as word processing, spreadsheet processing, access to databases, etc at all workplaces;
- To explore strategies of reducing bandwidth costs for universities in East Africa;
- To encourage and facilitate inter-connectivity amongst the IUCEA member institutions.

### **2.2.3 Policy Statements**

- The IUCEA shall continue to improve its institution-wide data communication network parallel to current advancements in technology in order to ensure smooth service provision to stakeholders.
- The IUCEA shall facilitate the development of a data communication infrastructure linking member institutions with each other.
- The IUCEA shall explore viable approaches to reduce bandwidth costs for institutions of higher learning in East Africa.
- The IUCEA shall facilitate the creation of consortia for large volume procurements of ICT infrastructure.

## 2.3 Management Information Systems

### 2.3.1 Issues

- Inadequate management information systems at the IUCEA Secretariat and within member universities.
- Isolated implementation of management information systems at the Secretariat and within member universities.

### 2.3.2 Policy Objectives

- To enhance and streamline integrated management information systems at the IUCEA secretariat;
- To promote the adoption of integrated management information systems within the IUCEA member institutions.

### 2.3.3 Policy Statements

- The IUCEA shall enhance and streamline integrated management information systems for the provision of the following services within the secretariat: **finance, human resources, projects, documents and records.**
- The IUCEA shall promote the adoption of integrated management systems in its member institutions covering aspects such as **finance, human resources, projects, documents and records, academic services (student records, admission and registration, fees and debt collection, timetabling, exams, transcripts), research, library, e-learning and hostels.**

## 2.4 ICT Security Management

### 2.4.1 Issues

- Unavailability of proper ICT risk assessment, security policy and procedures.
- Lack of proper business continuity and disaster recovery plan and mechanism.

### 2.4.2 Policy Objectives

- To establish a proper ICT risk assessment, security policy and procedures;

- To put in place a proper business continuity and disaster recovery plan and mechanism.

### **2.4.3 Policy Statements**

- The IUCEA shall put in place a proper ICT security policy and procedures, based on ICT risk assessment.
- The IUCEA shall put in place proper business continuity and disaster recovery plan and mechanism.

## **2.5 e-Resources**

### **2.5.1 Issues**

- Lack of consolidated and digitised up-to-date literature within East African university libraries.
- Lack of essential tools required for networking and resource sharing.
- Lack of an Information Resource Centre (IRC) at the IUCEA.
- Lack of awareness on available information resources.
- High cost of subscription to online databases.
- Poor collection and dissemination of local knowledge and content that is relevant to local situations – local research needs to be made accessible to researchers in the region so that the findings may be beneficial to the region.

### **2.5.2 Policy Objectives**

- To identify the electronic resources that are required/available within the region for teaching, research and public service;
- To establish and maintain a state-of-the-art information resource centre stocked with both print and electronic information resources relevant to the needs of stakeholders;
- To promote joint-subscription to the available information resources by universities;
- To promote and facilitate universities in East Africa to negotiate with publishers for discounted subscription rates to their e-resources;
- To facilitate the creation of networks of researchers who can provide an environment of resource sharing and exchange of articles for research and other academic purposes;
- To enhance access to the world's knowledge through a network of regional research libraries and information centres;

- To facilitate the development of local content and enhance access to local research output through the creation of a regional repository of local content;
- To identify joint-research initiatives in the region and facilitate members to publish their findings electronically.

### **2.5.3 Policy Statements**

- The IUCEA shall establish a state-of-the-art Information Resource Centre (IRC) within the Secretariat.
- The IUCEA shall establish and manage online information resources (e-library, e-journals, meta- search engine to query library resources of member institutions, etc) for supporting member institutions in their teaching, research and public service.
- The IUCEA shall facilitate member institutions to access national and international databases and publications.
- The IUCEA shall develop and maintain a regional repository for maintaining digital copies/references of theses, dissertations and other grey literature as the focal point for locally generated content.
- The IUCEA shall gather and provide access to useful information about members through the implementation of an *East African Universities Directory (EAUD)*.

## **2.6 ICT in Education**

### **2.6.1 Issues**

- The pressure of increased demand for education and the possibilities being offered by the rapidly emerging new technologies.
- New usage of ICT to enhance traditional learning.
- The changing learning paradigm from teacher-centred to learner-centred – ICT provides an array of powerful tools that may help in transforming the present isolated, teacher-centred and text-bound classrooms into rich, student-focused, interactive knowledge environments.
- The need for development and deployment of common platforms that support interactive online work within a bandwidth-limited environment – collaborations can reduce costs associated with designing and implementing commonly used e-learning platforms and courses (i.e. sharing of reusable learning objects housed in a common repository).

### **2.6.2 Policy Objectives**

- To assess the existing e-learning, distance education and virtual university practices within the universities in East Africa;
- To identify and evaluate present e-learning platforms amongst the universities;
- To develop a framework for a shared e-learning system (content, infrastructure, pedagogical, etc);
- To promote the use of ICT in education within member universities.

### **2.6.3 Policy Statements**

- The IUCEA shall promote the utilization of ICT as a tool for teaching, learning and research.
- The IUCEA shall promote best practices in e-learning, distance education and virtual university systems within the universities in East Africa.
- The IUCEA shall promote the use of common e-learning management platforms and sharing of content.
- The IUCEA shall promote the application of distance education/virtual university systems in East Africa in order to widen access to higher education, especially to traditionally marginalized groups.
- The IUCEA shall facilitate the development of a reusable learning objects repository for the purposes of sharing content.

## **2.7 Promotion of Resource Sharing and Collaboration**

### **2.7.1 Issues**

- Lack of information on the resources available within the various universities.
- Lack of a formalized framework for resource sharing and collaboration amongst universities.
- Different policy regimes within individual member universities that hinder resource sharing and collaboration.

### **2.7.2 Policy Objectives**

- To establish the existing resources within the various universities that may be shared;
- To facilitate the development of a formalized framework for resource sharing and collaboration amongst universities;

- To advocate for collaboration and resource sharing amongst member universities.

### **2.7.3 Policy Statements**

- The IUCEA shall develop a database of resources that are available within the various universities that may be shared.
- The IUCEA shall put in place a formalized framework for resource sharing and collaboration amongst universities in East Africa.

## **2.8 Publicity and Marketing**

### **2.8.1 Issues**

- Inadequate knowledge and appreciation of the strategic roles of the IUCEA and its member universities by all relevant key stakeholders.
- Ineffective use of web services for publicity within the IUCEA and amongst member universities.

### **2.8.2 Policy Objectives**

- To promote the use of ICT as an avenue for increasing awareness of the IUCEA and member universities to their stakeholders;
- To effectively use web services for publicity amongst the IUCEA and member universities;
- To encourage regular update of the IUCEA and member universities' e-content.

### **2.8.3 Policy Statements**

- The IUCEA shall ensure the development and maintenance of a state-of-the-art website for effective publicity and marketing of the Council through the establishment and maintenance of linkages between universities and other higher education stakeholders
- The IUCEA shall encourage Member Universities to develop their own websites and maintaining them regularly.

## **2.9 ICT Skills Development**

### **2.9.1 Issues**

- Inadequate technical skills to manage, control, and maintain ICT services at the IUCEA Secretariat and at member universities.
- Inadequate end-user skills for effective use of ICT resources for their day-to-day administrative activities.
- Inadequate skills to develop relevant ICT applications for the day-to-day service provision by staff within the IUCEA and member universities.
- Inadequate resources for ICT human capacity building amongst member universities.
- No structured mapping of ICT skills, ICT curriculum, qualifications, and other pre-requisites to guide current and prospective employees, academia, employment counsellors, and the industry.
- Lack of information on available ICT human resources within universities in East Africa.

### **2.9.2 Policy Objectives**

- To ensure that ICT staff are adequately equipped with the requisite skills to enable them fulfill their duties in a competent and professional manner;
- To ensure that all the IUCEA employees have the necessary skills to enable them use ICT facilities in their work;
- To establish a community of local software developers that are able to develop relevant ICT applications for the day-to-day service provision;
- To facilitate the enhancement of ICT human capacity amongst member universities;
- To facilitate the mapping of ICT skills, ICT curriculum, qualifications, and other pre-requisites to guide current and prospective employees, academia, employment counsellors, and the industry;
- To facilitate the sharing of ICT human resource capacity amongst universities in East Africa.

### **2.9.3 Policy Statements**

- The IUCEA shall ensure and require that all staff are trained on a continuing basis to equip them with the requisite skills to fully exploit the ICT environment in their different functions.
- The IUCEA shall undertake the mapping of ICT skills, ICT curriculum, qualifications, and other pre-requisites to guide current and

prospective employees, academia, employment counsellors, and the industry.

- The IUCEA shall establish an electronic directory of ICT human resource capacity amongst universities in East Africa.
- The IUCEA shall facilitate the development and implementation of training programmes in ICT to address strategic needs of member universities.

## **2.10 Quality Assurance in ICT**

### **2.10.1 Issues**

- Lack of formalised methods to assess the quality of ICT resources and services.
- Non-conformance to best practices in management, control and maintenance of ICT.
- Lack of formalised methods for assessing the quality of information resources.

### **2.10.2 Policy Objectives**

- To establish formalised methods for assessing the quality of ICT resources and services.
- To advocate for conformity to best practices in acquiring, management, control, maintenance and disposal of ICT.
- To introduce formalised methods for assessing the quality of information resources and services.

### **2.10.3 Policy Statements**

- The IUCEA shall put in place formalised methods to assess the quality of ICT resources and services.
- The IUCEA shall advocate for conformity to best practices in acquiring, management, control, maintenance and disposal of ICT.
- The IUCEA shall put in place formalised methods for assessing the quality of information resources and services.

### 3 ICT POLICY IMPLEMENTATION STRATEGY

A mechanism will be put in place to translate this policy document into an action plan that can guide implementation in a more detailed and prioritised way. To produce the implementation strategy a group of ICT experts from member universities will be established as the *Team for the Design of the Strategy for the Implementation of the IUCEA ICT Policy*. This team will also establish the metrics for monitoring and evaluation. A monitoring and evaluation framework will be put in place in order to ensure the effective implementation of activities. The *ICT Strategy Committee* will review the progress of activities twice a year and the implementation strategy will be reviewed every two years.

Review of this policy will be prompted by any of the following:

- i) Significant changes in the IUCEA strategic plan;
- ii) Significant changes in implementation of the policy as identified by the *ICT Strategy Committee*;
- iii) After every three years.

The IUCEA will seek funding from Partner States, Development Partners, and other relevant sources in order to facilitate the implementation of the activities considered within this policy document.

### 4 CONCLUSION

This document has recognised the need for an ICT policy that will guide the activities of the IUCEA for the next five years. It identifies the main priority areas and sets the guidelines that will need to be pursued for relevant and successful intervention. Policy issues, objectives and statements have been made on the following themes: ICT management, control and maintenance; data communication infrastructure and Internet services; management information systems; ICT security management; e-resources; ICT in education; promotion of resource sharing and collaboration; publicity and marketing; and quality assurance. Finally, the document provides guidelines for the policy implementation strategy.