REGIONAL HIGHER EDUCATION QUALIFICATIONS GAPS

Vol. II

Situation Composite EAC Report

Mohammed Kerre, PERC-PACE International
Fr. Charles Kitima, Inter-University Council for East Africa
Salim Mwawaza, East African Business Council

January 2014
Letter of Submission

Professor Mayunga Nkunya
Executive Secretary
Inter-University Council for East Africa
EADB Building, Kampala, Uganda

Dear Professor Nkunya

You appointed us on November 28, 2013 to study and report on the status of national qualifications framework in the EAC Partner States and to recommend a generic but practical system of regional higher education qualifications framework.

In carrying out this task, the Team reviewed available literature, held key informant interviews with 36 universities across the EAC region accredited to IUCEA through their national higher education commissions/councils; 15 business and employer representative associations and federations, and 16 government ministries/departments and or authorities/agencies (MDA). The Team also received dully field questionnaires from higher education institutions and the labour and business sectors. The field questionnaires targeted
(a) Government authorities responsible for higher education in the Partner States;
(b) Managers of higher education institutions;
(c) Programme and course coordinators in higher education institutions;
(d) Directors/Coordinators of units/subjects/modules;
(e) The learners; and
(f) Labour market coordinators working with higher education institutions.

The administration of the questionnaire was done by the Focal Point Persons (FPPs) from national agencies responsible for higher education and the qualifications framework. The Team of Experts was in contact with the FPPs for feedback, guidance, and review during the process of conducting interviews as well as writing the Country Status Reports. This helped ensure that the Country Status Reports remained as comparable as possible, while allowing flexibility in the approaches taken by individual members of the study team.

Based on the findings of the study, the Team has developed and hereby submits the following documents:

1. Volume I: Country Situational Reports
2. Volume II: Situation Composite EAC Report
3. Volume III: EAC Higher Education Policy
4. Volume IV: EAC Higher Education Strategy
5. Volume V: EAC Regional Higher Education /Qualifications Framework

In submitting these Reports, which contain our unanimous views and recommendations, we thank you for the honour and trust which you have placed upon us.

Rev. Dr. Charles Kitima
Expert Universities
April 18, 2014

Dr. Mohammed Kerre
Facilitator
April 18, 2014

Mr. Salim wa Mwawaza
Expert Labour Sector
April 18, 2014
Preface

This study was designed to produce empirical evidence and analysis of Partner States’ (PS) experiences as a basis for advising countries on whether, and if so, then how, to introduce a regional Higher Education Qualifications Framework (EAQFHE), as part of a strategy to achieve region-wide skills development and employment goals, and as a measure of comparability, internationalization of qualifications, and fulfillment of the tenets of the Treaty Establishing the East African Community.

The survey, carried under the partnership of Inter-University Council for East Africa (IUCEA) and the East African Business Council (EABC), focused on PS’ experience with Qualifications Framework (QF) at the decision and design as well as at the implementation stages in order to identify the source of problems and the elements of success. The IUCEA and the EABC will take full account of this study in developing policy advice for Partner States, employers’ and workers’ associations, in designing further research to configure and improve application of QF, and in working with other institutions and agencies in mainstreaming QF into the work environment.

A QF is intended to improve understanding of qualifications (degrees, certificates) or recognition of experiential-based learning and capabilities in terms of the information they convey to an employer about prospective workers’ competences. QFs are also intended to explain how qualifications relate to each other and thus can be combined to build pathways within education systems inside and across borders.

The focus on QFs is important because some 100 countries or so are now involved in some way in designing or implementing qualifications frameworks. Secondly, a QF is increasingly becoming an important education reform instrument especially in terms of increasing the relevance and flexibility of education and training programmes, easing recognition of prior learning, enhancing lifelong learning, improving the transparency of qualification systems, creating possibilities for credit accumulation and transfer, and in developing quality assurance systems. Governments are increasingly turning to qualifications frameworks as a policy tool for reform, and to promote investment, innovation and inclusion1.

Despite the growing international interest, there is very little empirical research about the actual design process, implementation and results of NQFs in the labour market. This regional comparative

---

1 In some cases national developments are propelled by the emergencies of regional frameworks such as what has been brought about in the European Union by the European Qualifications Framework. In some other cases the implementation of a National Qualifications Framework has been widely supported by international organisations and is often linked to aid money, international loans and foreign direct investment.
analysis of the implementation and impact of qualifications frameworks in the EAC-PS takes an important step towards filling this gap.

The research goes beyond sharing information about various approaches to NQFs taken by countries, and examines the evidence of their results to date and the extent to which stakeholders have confidence or questions about their eventual effectiveness. For example, the extent employers are using QFs in their hiring decisions; the extent national qualifications authorities are monitoring whether the qualifications they develop are being awarded and the difference these qualifications make to workers in the job market; and amongst those who are responsible for designing and implementing national skills systems, the confidence that qualifications frameworks are helping to make the most of investments in education and training, or the concern that these efforts are crowding out investments in extending accessibility of good training, improving teacher training and working conditions, or developing labour market information systems and employment services.

At its core, this research asks discomforting questions, such as whether NQFs are sometimes being relied on to provide a technical solution to complex social objectives (better matching skills provision and demand, better accountability of training providers, better involvement of employers and workers in training systems, etc.); or whether some countries are developing NQFs based on the rhetoric surrounding them rather than on the evidence of their effectiveness.

The fundamental objective of policy advice is to help constituents avoid borrowing policies from elsewhere, and to help them inform their own policy choices based on consideration of a good menu of options, capacity to assess needs, and understanding of the potential costs, risks, and benefits of different approaches and policies.

The findings of this study have been used in producing six different pieces of reports to assist the stakeholders in the development of a EAQFHE. These reports include:

1. Country Situational Reports compiled as Volume I
2. Situation Composite EAC Report as Volume II
3. EAC Higher Education Policy Volume III
4. EAC Higher Education Strategy Volume IV
5. EAC Regional Higher Education Qualifications Framework Volume V, and
6. EAC Directive on Qualifications Framework Volume VI
Acknowledgements

This is the report of a regional survey project carried out by a team of experts constituted by the Inter-University Council for East Africa (IUCEA) and the East African Business Council (EABC) under the auspices of the East African Community (EAC) on the development and implementation of Higher Education Qualifications Framework (HEQFs) and their use and impact to the development of the EAC Partner States (EAC-PS).

The study team would like to communicate its special thanks to the governments of the five EAC Partner States (Burundi, Kenya, Rwanda, Tanzania and Uganda), the higher education institutions and the private sector organisations that participated in the survey. In particular, the team thanks the national coordinators who managed the process of data collection and all the providers and other stakeholders who engaged in the process at country level, especially those focal points who supported the work of experts in this process.

National coordinators and focal point persons from provider organisations were:

- **Burundi**: Frederic Bingirinama, National Commission for Higher Education
- **Kenya**: Samuel Kachumbo, Commission for University Education
- **Rwanda**: Fred Mugisha, Commission for Higher Education
- **Tanzania**: Setta Malehe, Tanzania Commission for Universities
- **Uganda**: Pius Achanga, National Commission for Higher Education

The study assignment has been carried out in collaboration with the IUCEA, where the lead expert is Fr. Dr. Charles Kitima, and the EABC led by Salim wa-Mwawaza, and facilitated by Mohammed Kerre of PERC-PACE International. However, this report is a result of the Facilitator’s analysis of the case studies of the five Partner States and does not necessarily reflect the views of the IUCEA, the EABC or the EAC.
#### Table of Contents

**Letter of Submission** 2  
**Preface** 3  
**Acknowledgement** 5  
**List of Tables and Figures** 7  
**Acronyms and Abbreviations** 8  
**Terminology** 10  
**Executive Summary** 14  

**I. Introduction and Background** 23  
1.1 Introduction 23  
1.2 Background to the Study 25  
1.3 Expectations of the Study 29  
1.4 Interpretation of the Terms of Reference 29  
1.5 Approach and Methodology of Study 30  
1.6 The Past, the Present and the Future 35  
1.7 Conclusion 38  

**II. The EAC in a "Catching-Up" Process** 39  
2.1 The Challenge 39  
2.2 Education and Industrialisation 41  
2.3 The Context of Harmonization of Higher Education and Professional Services in the EAC 44  
2.4 Towards a Paradigm Shift 50  
2.5 Conclusion 52  

**III. The Context of Higher Education Programmes in the East African Community** 53  
3.1 Introduction 53  
3.2 Nature Scope and Extent of Higher Education Programs 53  
3.3 Higher Educationscape in East Africa 54  
3.4 HEI Education and Training Programmes 58  
3.5 From Education to Employment 71  
3.6 EAC as a Common Education Area 73  
3.7 Conclusion 82  

**IV. Higher Education Quality Assurance Practices in the EAC Region** 83  
4.1 Introduction 83  
4.2 Demand for Quality Assurance in Higher Education 83  
4.3 Challenges of Quality in Higher Education 85  
4.4 Quality Assurance of Higher Education Inputs 87  
4.5 Conclusion 102  

**V. Development and Implementation of National Qualifications Frameworks** 103  
5.1 Introducing National Qualifications Frameworks (NQFs) 103  
5.2 Qualifications Frameworks as Seen by Regional Leadership in Education and Industry 107  
5.3 Partner State Governments with NQFs 109  
5.4 Global Trends in Qualifications Frameworks 110
5.5 Some Issues Raised in the Interviews
5.6 Conclusion

VI. The NQF in the EAC Partner States
6.1 Introduction
6.2 Drivers of NQFs
6.3 National Qualifications Framework Designs
6.4 Impact of National Qualifications Framework
6.5 Conclusion

VII. Potential for a Regional Qualifications Framework
7.1 The Direction
7.2 The EAC Higher Education Institutions
7.3 Technological Advances and Global Competition
7.4 The Aim of a Higher Education Qualifications Framework in the EAC
7.5 Added Value and Significance of the Higher Education Qualifications
7.6 The Need for a Regional Credit System
7.7 Conclusion

References

List of Tables and Figures
Table 1: Quality of Mathematics and Science Education in East Africa 2011-2013
Table 2: Study of Perceived Creativity amongst School Children
Table 3: The Education Structure in the EAC Partner States
Table 4: Type of Skills Provided in Apprenticeship
Table 5: Number of Higher Education Institutions by Category and Partner State 2013
Table 6: Total Enrolment of Students by Category of Institution and Partner State 2013
Table 7: Perception of Graduate Readiness for the Job Market by Partner State
Table 8: Employee Preparedness by Sector
Table 9: Employer and HE Provider Perspective on Youth Skills
Table 10: Perception of Youth Skills Competence
Table 11: How young People Prefer to Learn
Table 12: Perception of Population of Graduates Finding Jobs After Graduation
Table 13: Challenges to Effective Quality Assurance Implementation
Table 14: EAC Partner States QF Status 2013
Table 15: Impacts of Having a Skills Gap
Table 16: Mode of Stakeholder Participation in Curriculum Review and Development
Table 17: Mechanism for Accumulation and Transfer of Credits
Table 18: Treatment of Students Leaving the Programme before the Mandatory Completion
Matrix 1: Status of Professional Groups within the EAC Mutual Recognition Agreement
Matrix 2: Comprehensive List of Skills and Competences
Matrix 3: Emerging Sets of Level Descriptors of Learning Outcomes
### Acronyms and Abbreviations

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;A&quot;-Level</td>
<td>Advanced Level of Education or Form Six Level</td>
</tr>
<tr>
<td>ACSE</td>
<td>Advance Certificate of Secondary Education</td>
</tr>
<tr>
<td>ASTD</td>
<td>American Society for Training and Development</td>
</tr>
<tr>
<td>ATE</td>
<td>Association of Tanzania Employers</td>
</tr>
<tr>
<td>AU</td>
<td>African Union</td>
</tr>
<tr>
<td>BTVET</td>
<td>Business Technical and Vocational Education &amp; Training</td>
</tr>
<tr>
<td>C-BET</td>
<td>Competence-Based Education and Training</td>
</tr>
<tr>
<td>CEA</td>
<td>Common Education Area</td>
</tr>
<tr>
<td>CHEA</td>
<td>Council for Higher Education</td>
</tr>
<tr>
<td>CHEA</td>
<td>Common Higher Education Area</td>
</tr>
<tr>
<td>CTI</td>
<td>Confederation of Tanzania Industries</td>
</tr>
<tr>
<td>CUE</td>
<td>Commission for University Education</td>
</tr>
<tr>
<td>DAAD</td>
<td>German Academic Exchange Service</td>
</tr>
<tr>
<td>DIT</td>
<td>Dar es Salaam Institute of Technology</td>
</tr>
<tr>
<td>DRC</td>
<td>Democratic Republic of Congo</td>
</tr>
<tr>
<td>DVC</td>
<td>Deputy Vice Chancellor</td>
</tr>
<tr>
<td>EAC</td>
<td>East African Community</td>
</tr>
<tr>
<td>EACCEA</td>
<td>East African Community Common Education Area</td>
</tr>
<tr>
<td>EAC-PS</td>
<td>East African Community Partner States</td>
</tr>
<tr>
<td>EACHEA</td>
<td>East African Community Higher Education Area</td>
</tr>
<tr>
<td>EAUB</td>
<td>East African University Baraton</td>
</tr>
<tr>
<td>EDPRS</td>
<td>Economic Development and Poverty Reduction Strategy</td>
</tr>
<tr>
<td>EHEA</td>
<td>European Higher Education Area</td>
</tr>
<tr>
<td>EQF</td>
<td>European Qualifications Framework</td>
</tr>
<tr>
<td>ERB</td>
<td>Engineers Registration Board</td>
</tr>
<tr>
<td>ESSP</td>
<td>Education Sector Strategic Plan</td>
</tr>
<tr>
<td>EU</td>
<td>European Union</td>
</tr>
<tr>
<td>FDI</td>
<td>Foreign Direct Investment</td>
</tr>
<tr>
<td>FPPs</td>
<td>Focal Point Persons</td>
</tr>
<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
</tr>
<tr>
<td>HE</td>
<td>Higher Education</td>
</tr>
<tr>
<td>HEI</td>
<td>Higher Education Institution</td>
</tr>
<tr>
<td>HKMU</td>
<td>Hubert Kairuki Memorial University</td>
</tr>
<tr>
<td>ICPAK</td>
<td>Institute of Certified Public Accountants Kenya</td>
</tr>
<tr>
<td>ICT</td>
<td>Information Communication Technology</td>
</tr>
<tr>
<td>IS</td>
<td>Information Systems</td>
</tr>
<tr>
<td>ISO</td>
<td>International Standards Organisation</td>
</tr>
<tr>
<td>IT</td>
<td>Information Technology</td>
</tr>
<tr>
<td>IUCEA</td>
<td>Inter-University Council for East Africa</td>
</tr>
<tr>
<td>JKUAT</td>
<td>Jomo Kenyatta University of Agriculture and Technology</td>
</tr>
<tr>
<td>K-BET</td>
<td>Knowledge-Based Education and Training</td>
</tr>
<tr>
<td>KCSE</td>
<td>Kenya Certificate of Secondary Education</td>
</tr>
<tr>
<td>KNBS</td>
<td>Kenya National Bureau of Statistics</td>
</tr>
<tr>
<td>KU</td>
<td>Kenyatta University</td>
</tr>
<tr>
<td>LS</td>
<td>Lower Secondary</td>
</tr>
<tr>
<td>Acronym</td>
<td>Full Form</td>
</tr>
<tr>
<td>---------</td>
<td>-----------</td>
</tr>
<tr>
<td>LTSFF</td>
<td>Long-Term Strategy and Financial Framework</td>
</tr>
<tr>
<td>MDA</td>
<td>Ministry, Department Agency/Authority</td>
</tr>
<tr>
<td>MMU</td>
<td>Mount Meru University</td>
</tr>
<tr>
<td>MU</td>
<td>Moi University</td>
</tr>
<tr>
<td>MUHAS</td>
<td>Muhimbili University of Health and Allied Sciences</td>
</tr>
<tr>
<td>NACTE</td>
<td>National Council for Technical Education</td>
</tr>
<tr>
<td>NCHE</td>
<td>National Commission for Higher Education</td>
</tr>
<tr>
<td>NCHE(B)</td>
<td>National Commission for Higher Education Burundi</td>
</tr>
<tr>
<td>HEC</td>
<td>National Commission for Higher Education Rwanda</td>
</tr>
<tr>
<td>NCHE(U)</td>
<td>National Commission for Higher Education Uganda</td>
</tr>
<tr>
<td>NM-AIST</td>
<td>The Nelson Mandela African Institute of Science and Technology</td>
</tr>
<tr>
<td>NQF</td>
<td>National Qualifications Framework</td>
</tr>
<tr>
<td>&quot;O&quot; Level</td>
<td>Ordinary Level of Education or Form Four Education</td>
</tr>
<tr>
<td>OTI</td>
<td>Other Tertiary Institutions</td>
</tr>
<tr>
<td>PEACCM</td>
<td>Protocol on the Establishment of the East African Community Common Market</td>
</tr>
<tr>
<td>PS</td>
<td>Partner State</td>
</tr>
<tr>
<td>PST</td>
<td>Performance Stand Tables</td>
</tr>
<tr>
<td>PTTF</td>
<td>Practical Technical Training Framework</td>
</tr>
<tr>
<td>QA</td>
<td>Quality Assurance</td>
</tr>
<tr>
<td>QAA</td>
<td>Quality Assurance Authority</td>
</tr>
<tr>
<td>QAF</td>
<td>Quality Assurance Framework</td>
</tr>
<tr>
<td>QF</td>
<td>Qualifications Framework</td>
</tr>
<tr>
<td>REC</td>
<td>Regional Economic Community</td>
</tr>
<tr>
<td>RMS</td>
<td>Regional Manpower Survey</td>
</tr>
<tr>
<td>RPL</td>
<td>Recognition of Prior Learning</td>
</tr>
<tr>
<td>RQA</td>
<td>Regional Quality Assurance</td>
</tr>
<tr>
<td>RQF</td>
<td>Regional Qualifications Framework</td>
</tr>
<tr>
<td>S-BET</td>
<td>Skills-Based Education and Training</td>
</tr>
<tr>
<td>SU</td>
<td>Sokoine University</td>
</tr>
<tr>
<td>TCU</td>
<td>Tanzania Commission for Universities</td>
</tr>
<tr>
<td>TUK</td>
<td>Technical University of Kenya</td>
</tr>
<tr>
<td>TVET</td>
<td>Technical Vocational Education and Training</td>
</tr>
<tr>
<td>UDS</td>
<td>University of Dar es Salaam</td>
</tr>
<tr>
<td>UNESCO</td>
<td>United Nations Education and Science Commission</td>
</tr>
<tr>
<td>UNIDO</td>
<td>United Nations Industrial Development Organisation</td>
</tr>
<tr>
<td>UON</td>
<td>University of Nairobi</td>
</tr>
<tr>
<td>UQF</td>
<td>University Qualifications Framework</td>
</tr>
<tr>
<td>US</td>
<td>United States of America</td>
</tr>
<tr>
<td>USA</td>
<td>United States of America</td>
</tr>
<tr>
<td>VTCs</td>
<td>Vocational Training Centres</td>
</tr>
<tr>
<td>WDA</td>
<td>Workforce Development Authority</td>
</tr>
<tr>
<td>ZANEMA</td>
<td>Zanzibar Employers Association</td>
</tr>
</tbody>
</table>
Terminology/Glossary

**Accreditation:** The process of formally recognizing the quality of higher education institutions (HEIs) or programme having met certain predetermined minimal criteria or standards as established through evaluation by an authorized body.

**Approval** refers to the formal processes by which a degree-awarding body agrees that a programme may be offered for study by students. Higher education providers are clear about how terminology is used within the context of their own processes. For example, some higher education providers may use the term validation rather than approval, or may use validation to refer to the event which forms the end point of the approval process.

**Awards:** is something given to a person, a group of people, or an organization to recognize their excellence in a certain field; a certificate of excellence reward given upon passing/attainment of a certain level of an examination

**Benchmarking:** This covers a wide spectrum of human resource and leadership and development metrics, customized by industry and company size.

**Competence:** Proven ability an individual possesses to use knowledge, skills and personal, social and/or methodological capacity, in work or study situations and in professional and personal development. In the context of the EAC Qualifications Framework, competence is described in terms of responsibility and autonomy.

**Competency-based:** Learning methods based on specific skills to be attained as opposed to abstract learning.

**Competency-based Training:** A training skills approach where one learns one competency until it is mastered before introducing the next one

**Competency-based Education:** A learning method where learners learn one skill until completed before proceeding to the next one. Students are then evaluated on this learning and once mastered move to the next one

**Competency Standards:** Level of abilities set for an individual to understand specific issues

**Credit** is an indicator of the volume of learning required for the completion of a module/course/qualification and is independent of the mode of teaching and learning (e.g. face-to-face; distance; on-
A credit is based on the concept of a **notional hour**. In the EACHEQF, one credit is equated to ten notional hours.

**Curriculum**: The content and quality of what students learn, can be defined as a coherent set of courses or modules of study leading to an award at the end of the duration of study. The term **curriculum** means an organized programme of study for a given award incorporating all matters such as academic staff requirement, duration of academic programme, admission requirement, programme contents and assessment process requirements.

**Delivery**: The pedagogy and staff

**Knowledge**: Level of information required by an individual to attain a certain qualification

**Knowledge-Based Learning**: Information acquired by an individual upon successful completion of a certain specific learning or instructions

**Learning Outcomes**: Learning Outcomes describe what a learner is expected to know, understand and be able to do after successful completion of a process of learning.

**Learning Objectives**: Learning purposes set to be attained upon completion of that learning period that could be examined.

**Module**: Where a programme is made up of more than one self-contained, formally structured unit, these units are described as modules. The term module refers to a formal learning experience encapsulated into a unit of study, usually linked to other modules to create a programme of study. Also, a module can be considered as combined units designed to achieve a particular learning outcome.

The term **module** refers to a formal learning experience encapsulated into a unit of study, usually linked to other modules to create a programme of study. Also, a module can be considered as combined units designed to achieve a particular learning outcome. A **course unit** can be considered as building block for curriculum design.

**National Qualifications Framework**: A credit transfer system developed in a country to create a single integrated national framework for learning achievements. It covers all levels of learning in secondary education further education, vocational and higher education involving courses that are accredited.

**National Qualifications System**: This relates to the recognition of learning and other mechanisms that link education and training to the labour market and civil society of a Partner State. This may include...
the development and implementation of institutional arrangements and processes relating to quality assurance, assessment and the award of qualifications. A national qualifications system may be composed of several subsystems and may include a national qualifications framework.

Notional Hour refers to the amount of time it takes for the average learner to achieve the learning outcomes. It includes any activity in which a learner is involved that relates to their mastering of a learning outcome. Such an activity may include set readings, contact hours, preparing for and writing an assignment, individual study, assessment, and so on.

Objectives-Based Learning: Learning arranged and conducted for accomplishment of some specific purposes.

Occupational Standards: Work related conditions set to govern a work place

Outcomes-based Learning: These are learning focused to measure specific performances; it requires the students to demonstrate the skills and course content that they are required to learn.

Professional: A member of certain group that has a standard or level of education possessing particular skills

Programme: programme is used to describe any stand-alone, approved curriculum followed by a student, which contributes to a qualifications of a degree-awarding body or otherwise carries academic credit where credit is used. The provision may be of any length or credit value, and includes pre-defined programmes leading to a specific qualifications, multidisciplinary programmes, pathways through a modular scheme, short periods of study leading to the award of academic credit, as well as programmes where the specific content is negotiated between the higher education provider and an individual student. Individual higher education providers ensure their processes for programme design, development and approval of research degrees are appropriate to their research environment. Higher education providers determine the extent to which their processes for programme design, development and approval are applicable to other awards which do not carry academic credit.

Programme design is a creative activity, which may result in innovative ideas for higher education provision. It is followed by a process of development which leads to the creation of a programme. Through this process, the content, modes of delivery, structure and components of the programme, including assessment methods and the means by which students will be engaged with the curriculum, are considered. The development process may also be used to enhance an existing programme, for example in response to the outcomes of programme monitoring and review.
**Qualification:** A Qualification is the formal recognition and certification of learning achievement awarded by a recognized institution, and should include critical cross-field or generic skills to promote lifelong learning as well as discipline, domain-specific or specialized knowledge, skills and reflexivity. It is, therefore, a formal outcome of an assessment and validation process which is obtained when a competent body determines that an individual has achieved learning outcomes to given standards.

**Qualifications Framework:** It is a framework system that integrates the qualifications issued by different academic bodies into a common structure. It consists of a set of common reference points, referring to learning outcomes, supported by a range of tools and techniques, regardless of the system where a particular qualification was acquired.

**Skills:** Skills is attributed to the ability to apply knowledge and use know-how to complete tasks and solve problems. In the context of this study, skills are described as cognitive (involving the use of logical, intuitive and creative thinking) or practical (involving manual dexterity and the use of methods, materials, tools and instruments).

**Validation:** A process associated with the collection and verification of information to justify that what is stated is correct as provided by the resource persons.
Executive Summary

The East African Community (EAC) is the regional intergovernmental organisation of the republics of Burundi, Kenya, Rwanda, Uganda and the United Republic of Tanzania established by Treaty signed on 30th November 1999 and entered into force on 7th July 2000. Following the ratification of the Treaty by the three original Partner States, Kenya, Uganda and Tanzania; the Republic of Burundi and the Republic of Rwanda acceded to it on 18th June 2007 and became full members of the Community with effect from 1st July 2007.

1. Legal and Institutional Framework

Authority: Articles 5 and 102 of the Treaty, allow the Partner States to undertake concerted measures to foster co-operation in education and training within the Community. This is through the harmonisation of curricula, examination, certification and accreditation of education and training institutions in the Partner States through the joint action of their relevant national bodies charged with the preparation of such curricula. These include supporting the activities of the Inter -University Council for East Africa (IUCEA); encouraging and supporting the mobility of students and teachers within the Community; and exchange of information and experience on issues common to the educational systems of the Partner States.

2. The Mandate

Policy Priorities: Among the policy priorities of the IUCEA, the EAC Institution mandated to coordinate the development of higher education and research in the Community and to develop systems for harmonisation of higher education, are reforming higher education and training systems, raising skills and competence levels, and improving and internationalizing qualifications systems. The citizens of the EAC Partner States (EAC-PS) are concerned more about improving the relationships between education and training systems on the one hand, and labour markets on the other to stem the perennial problem of unemployment as a result of skills mismatches.

3. Youth, Education and Employment

This study started on the premise that there existed a twin crises of a shortage of jobs and a shortage of skills in the East African Community Partner States. In the process we encountered another key shortage: the lack of hard data. This deficiency makes it difficult to even begin to understand which skills are required for employment, what practices are the most promising in training youth to become productive citizens and employees, and how to identify the programs that do this best. The state of the region’s knowledge about education-to-employment is akin to that regarding school-system
reform, which still haunts the Partner States to the extent that they are not sure how to move from basic to higher education, fifty years into independence. As a consequence:

Employers, education providers, and youth continue to live in parallel universes. To put it another way, they have fundamentally different understandings of the same situation. Less than a third of youth and employers, for example, believe that new graduates are adequately prepared for entry-level positions. Education providers, however, are much more optimistic: 80 percent of them believe new graduates are ready to work. The same disconnect occurs with regard to education; 45 percent of education providers believe the main reason students drop out is that the course of study is too difficult, but only 9 percent of youth say this is the case, they blame access and affordability.

The education-to-employment journey is fraught with obstacles. The education-to-employment system exhibits three critical junctures: (1) enrolling in postsecondary education, (2) building skills, and (3) finding a job. There are significant challenges at each intersection.

a) Cost is the top barrier: 46 percent of high-school graduates indicated they did not continue their education because it was too expensive. Among those who did enroll, 48 percent are convinced they made the right choice in their selection of institution or field of study.

b) Building Skills comes second: About 60 percent of youth say that on-the-job training and hands-on learning are the most effective instructional techniques, but fewer than half of that percentage are enrolled in curricula that prioritize those techniques.

c) Finding a Job comes third: Here it is observed that a quarter of youth do not make a smooth transition to work; their first jobs are unrelated to their field of study and they want to change positions quickly. In 2013, this number was as much as 68 percent, who thought they were in wrong jobs and considered themselves not employed. On this particular intersection it is also important to understand that gone are the days of company loyalty. Young adults joining the workforce straight out of college are not looking for pensions but rather developmental opportunities and the chance to make a difference.

Why are the three major stakeholders not seeing the same thing? In large part, this is because they are not engaged with each other. One-third of employers say they never communicate with education providers; of those that do, fewer than half say it proved effective. Meanwhile, more than a third of education providers report that they are unable to estimate the job-placement rates of their graduates. Of those who say they can, 20 percent overestimated this rate compared with what was reported by youth themselves. Nor are youth any better informed: fewer than a third say that when they chose what to study they had a good understanding of which disciplines lead to professions with job openings and good wage levels.
To address the gaps in qualifications and employment requires innovative and effective interventions by education providers and employers.

a) First, education providers and employers should actively step into one another’s worlds. Employers might help to design curricula and offer their employees as faculty, for example, while education providers may have students spend half their time on a job site and secure them hiring guarantees.

b) Second, in the best programs, employers and education providers should work with their students early and intensely. Instead of three distinct intersections occurring in a linear sequence (enrollment leads to skills, which lead to a job), the education-to-employment journey is treated as a continuum in which employers commit to hire youth before they are enrolled in a program to build their skills.

The problem, then, is not that success is impossible or unknowable—it is that it is scattered and small scale compared with the need.

Creating a successful education-to-employment system requires new incentives and structures. To increase the rate of success, the education-to-employment system needs to operate differently, in three important ways:

a) Stakeholders need better data to make informed choices and manage performance. Parents and young people, for example, need data about career options and training pathways. Imagine what would happen if all educational institutions were as motivated to systematically gather and disseminate data regarding students after they graduated—job-placement rates and career trajectory five years out—as they are regarding students’ records before admissions. Young people would have a clear sense of what they could plausibly expect upon leaving a school or taking up a course of study, while education institutions would think more carefully about what they teach and how they connect their students to the job market.

b) The most transformative solutions are those that involve multiple providers and employers working within a particular industry or function. These collaborations solve the skill gap at a sector level; by splitting costs among multiple stakeholders (educators, employers, and trainees), investment is reduced for everyone—an incentive for increased participation. Agreements such as non-poaching deals can also boost employers’ willingness to collaborate, even in a competitive environment.

c) Partner States need system integrators (one or several) responsible for taking a high-level view of the entire heterogeneous and fragmented education-to-employment system. The role of the system integrator is to work with education providers and employers to develop skill solutions, gather data, and identify and disseminate positive examples. Such integrators can be defined by sector, region, or target population.
**Education-to-employment solutions need to scale up.** There are three challenges to achieving scale, and each of these challenges has a proposed solution.

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Proposed Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constraints on the resources of education providers, such as finding qualified faculty and investing in expansion.</td>
<td>Pairing technology, such as the internet and other low-cost outlets, and a highly standardized curriculum can help to supplement faculty and spread consistent instruction at a modest cost.</td>
</tr>
<tr>
<td>Insufficient opportunities to provide youth with hands-on learning.</td>
<td>Apprenticeships traditionally have provided hands-on experience, but there are not enough spaces to meet demand. Technology, in the form of “serious games” and other kinds of simulations, can help by offering tailored, detailed, practical experience to large numbers at a comparatively low cost. Serious-game simulation could become the apprenticeship of the 21st century.</td>
</tr>
<tr>
<td>The hesitancy of employers to invest in training unless it involves specialized skills.</td>
<td>Employers often are willing to invest only in those specialized skills whose value they can fully capture; they do not want to spend money on employees who might take their expertise elsewhere. But for providers, it is expensive to develop solutions for every employer. One proven approach is to combine customization and scale by offering a standard core curriculum complemented by employer-specific top-ups.</td>
</tr>
</tbody>
</table>

When all is said and done, most importantly we need a better approach for managing talent. Today talent management is about using systems, solutions, and processes to make elements of talent management work together and reinforce each other. The competition for finding high-quality job candidates is growing increasingly intense as the global economy steadily grows and options for expansion and stability manifest themselves. This comes at a time when the practice of sourcing, recruiting, and selecting qualified candidates is being completely revolutionized.² Although unemployment remains high among many groups, highly skilled workers are in great demand, making it critical for employers to become “talent magnets” and create a steady pipeline of top people.³ This attraction should reach both outward and inward. Externally, employers should focus on building and communicating a strong and relevant employment brand, as well as treating every employee as a brand ambassador.

---

² Printed classified ads—those relics from another era—have given way to web-based employment marketplaces, industry-specific marketplaces, and robust company job boards. Those online tools are now being augmented and, in some cases, supplanted by novel social recruiting tools that use Twitter, Facebook, LinkedIn, and other resources. Recruiters are also finding candidates on function-specific online gathering spots such as GitHub and Stack Overflow (e.g., for the software developer community).

4. Impact and Scope of National Qualifications Frameworks

**Desire for Reforms**: We noted that all the five EAC-PS profess to have National Qualifications Frameworks (NQFs). However, on the ground little, if any can be seen in practice. Further, an examination of existing NQFs does not reveal, how since conception, the NQF has impacted (positively or negatively) on the education and training systems, employability of graduates, and performance of the business and employment sectors. This could probably be explained by the fact that no impact research has been carried out in Rwanda and Tanzania, which have advanced a lot more in the NQF systems.

**Too Early to Tell**: There is a misconception that NQFs provide a quick-fix or simple solutions to the complex problems facing countries in relation to education, skills development, and employment. This cannot be farther from the truth. On a global scale, there is little evaluative data about circumstances, starting points, different policy goals, problems of implementation, measured achievements and different approaches when decisions are made about replication of existing models of qualifications frameworks. As a result countries eager to put their education systems on the map are investing considerable resources in a policy mechanism which is largely untested and under-researched\(^4\). In many instances this is because NQFs are a recent intervention trapped in many roses, and it may be simply too early to tell the extent to which NQFs are embraced. The EAC NQFs have been around for a very short time, and still in the initial stages.

**Implementation Difficulties**: Both Rwanda and Tanzania cited considerable evidence of difficulties associated with implementing NQF because of too high ambitions, lack of legal framework, weak awareness and consensus building and lack of ownership by the education and employment sectors. As a result, the intended objectives of improving employability and communication between education and training systems and labour markets have not been realized. In Rwanda, there is some indication of the framework being used by the Workforce Development Authority.

**Awareness**: Only 13.8% of the businesses and employers in the EAC region are aware of quality assurance practices and qualifications frameworks in the higher education system, and 6.8% have heard that the government was working on one. They are, therefore incapable of demonstrating how qualifications would add value to their current operations. However they are aware that qualifications should be able to facilitate alignment of learning in universities to the labour market. Representatives of qualifications authorities, government agencies, and industry bodies interviewed, did not have

---

\(^4\) Qualifications frameworks tend to capture and represent many hopes and dreams. Expectations that qualifications frameworks can achieve the ambitious policy objectives claimed for them in relatively limited time periods seem to be ill-founded. This research found little evidence that NQFs are achieving their goals.
concrete evidence, evaluations, research that there had been achievements in this regard, and this was compounded by lack of information.

5. Reasons for Introducing NQFs

Students bring talent and creativity to the field of efficiency especially if we provide space to inspire and educate them.

Similarities: All the five EAC-PS (even those with no NQFs) echoed similar reasons for introducing NQFs. These, among others, were as vehicle to improve communication of existing qualifications systems; increase transparency of qualifications; improve relationships between education and training and labour markets; support learners to move between sectors as well as enter or re-enter education and training; enable the recognition of prior learning; improve quality as part of quality assurance systems, as well as by involving industry in the setting of standards or learning outcomes; increase the flexibility of provision of education and training; and to increase the status of qualifications from technical vocational education and training and workplace-based training.

Differences: There were differences of emphasis between EAC-PS which aim to improve how their qualifications systems will be used and understood (Burundi and Uganda), and those which were more focused on achieving transparency for individual qualifications (Kenya, Rwanda and Tanzania). Another difference was the extent to which an NQF was seen as a way of organizing existing qualifications, or as a system for developing new qualifications. There were also differences with regard to the level of expectation placed on the framework.

6. Higher Education Qualifications Framework Bottom-Line Value varies by Partner State

Peer Influence: The EAC-PS have, since the World Bank policy transfer and replication initiatives of the 1960s, thrived on policy initiatives promoted by donor/development partners. However, we note that peer influence (from countries that are already implementing NQF) has been the main reason why NQFs are being introduced, as well as playing a significant role in how they are being developed. The association between the EAC higher education regulatory agencies with their counter-parts in Europe, and the EAC universities with the European Universities has greatly contributed to the increased drive towards development of qualifications frameworks.

QF Track Record: EAC-PS appear to be influenced more by the claims made about NQFs in other countries than by their proven track records, without considering differences in contexts, and without understanding all aspects of how the framework was developed and implemented, and without looking at the country’s educationscape. Donor and development agencies seem to play influential
roles, in some cases with regard to decisions to adopt a framework as well as which model to adopt, and in others with financial support.

**Vision and Plan:** Qualifications Frameworks drive value in education in four ways: (i) knowledge, (ii) skills, (iii) competence, and (iv) outcomes, which are primarily intended for use in the alignment of qualifications and hence national frameworks. They dictate that each education system must have a compelling vision and a comprehensive plan. The complexity and depth of knowledge and understanding creates missed opportunities to gain maximum advantage from investment in education and learning. Critical to doing that is reinforcing the idea of quality assurance in the education system. When people feel accountable, assured and confident, it is more rewarding. When used well, a qualifications framework expands the improvements delivered in one part of an institution across the whole value chain of education and the labour market. An examination of the various Partner States indicated that they all have recently launched national education policies, but prominently missing in all of these is national education philosophies, which make national visions and policies more compelling.

7. **Use of Learning Outcomes**

**Elaborate and Detailed Rules:** The main mechanism to create transparency in most of the countries is the specification of learning outcomes or competence statements, as well as broader outcomes in level descriptors. Official sets of levels have been created in all the countries (except Burundi), and level descriptors in most of them. While there are considerable expectations about what level descriptors can achieve, the study found little specific evidence from any of the countries that they are useful in making decisions about the location of qualifications on the framework, or about credit transfer. In many cases the implementation of outcomes or competence based approaches seems to necessitate very elaborate and detailed rules and specifications, which may account for why so many qualifications and competence-standards were developed but not used. This was even made worse when some institutions took this to mean the same and or be applied as a curriculum.

**Involvement of the Employer:** Nearly all Partner States suggest that the lack of employer involvement in the existing systems is a key reason why qualifications do not meet their needs, and many cite lack of willingness of employers to participate in education and training systems as a reason for introducing NQFs. Only 27.6% of the employers participate in curriculum review and development. QF is a product to be celebrated, owned and embraced by the employer because it defines the interest of the employer in the development of the human resource factor.
**Investment:** Introduction and implementation of a qualifications framework is an expensive venture requiring heavy investment, which Partner States do not seem to be ready to undertake. The collaboration involving the academia, private sector and government are important in order to make this possible. Further, the political will of the government and its commitment to action, should be the motivation for the private sector to invest in the implementation of QF.

**8. Implementation Success Factors and Challenges**

**Getting Priorities Right:** The research suggests that what is key, in particular for the EAC Partner States, is the need for serious consideration of policy priorities as well as the sequencing of policies. Countries that have been most successful are those which have treated the development of frameworks as complementary to improving institutional capability rather than as a substitute for it or as a way of re-shaping institutions, and have seen outcomes of qualifications and programmes leading to them as intimately related rather than separable. Successful use of learning outcomes seems also to be based on strong professional associations and strong educational institutions. For instance, the relatively successful Scottish framework has been led by educational institutions and awarding bodies, and while it uses learning outcomes, it has a flexible approach to how they are created and used, and is described as using them in relation to ‘inputs’.

**Governance:** In many instances, QFs affect how educational institutions and systems are governed, and sometimes existing governance structures conflict with QFs. There were instances of strong support from governments, instances where governments appeared to not be in the driving seat, and instances where different government bodies were at odds with each other. There were instances of lack of employer involvement or belief in this type of approach. Many education and training institutions in the countries in the study seemed to have reservations about QFs, although instances of support were found.

**Social Dialogue:** The importance of social dialogue, and the involvement of a range of different stakeholders, is emphasized in this study. However, the study suggests some difficulties. One is the involvement of industry, as mentioned above. The weakness of trade unions in many countries was a particular concern. If employees’ interests are going to be addressed in QFs or other education and training policies, clearly there needs to be more public concern for building and supporting the involvement of trade unions. The role of education and training institutions was also a point of concern in the study, as in many instances they appear to be dissatisfied with QFs and related reforms. The experiences from the various countries in the study also suggest that far more thought needs to go into considering what roles different stakeholders can and should play, in what types of structures, and in which processes. This study suggests that the increasingly influential role of qualifications authorities
themselves in the design and implementation of QFs, and in broader education and training policies is an important future focus for research.

9. Challenges in National Qualifications Frameworks

**Integrating 5 Qualifications Framework Processes**: The draft and existing national qualifications frameworks (NQFs) have more similarities than differences, however this does not mean it is easy to integrate the five qualifications framework processes. Whereas some are ten levels, others are five or eight levels. There is also the issue relating to technical and regular qualifications frameworks - in Tanzania and Kenya - TVET and higher education display different frameworks

10. Implications for Regional Qualifications Framework

Some people view a qualifications framework as highly disruptive, affecting not only revenue and cost structures of some higher education institutions, but also shaking up the core business and operating models of the higher education system. Lessons from countries and higher education institutions that have implemented qualifications frameworks suggest that it has the potential to facilitate substantial organizational change, provided institutions approach qualifications framework tools as they would any large-scale transformation, adopting an institutional approach.

The EAC Partner States’ use of qualifications framework is mainstream, and the focus should be on establishment and institutionalization of the regional academic infrastructure to make this possible. Higher education institutions can still take advantage of the untapped potential this infrastructure has to transform their education and training systems, and create significant value. The onus will be on the higher education providers to act decisively and quickly, streamlining and repurposing their physical delivery and distribution and redirecting the freed-up capital to build out their infrastructure channel capabilities.

To capture this potential value and take advantage of further opportunities, we must see the effective use of the regional qualifications framework as an organizational transformation in its own right, requiring a shift in user mind-sets and behaviors within the Partner States and higher education institutions themselves. It is worth noting that highly aligned higher education institutions are known to have achieved, in addition to quality outcome-based education, an average of 32% annual revenue growth, while less well-aligned, even with high student enrollment, have reported an average 7% decline in revenue (Aberdeen, 2012).
I. Introduction and Background

1.1 Introduction

Regional and global trends and developments are increasingly impacting on nation states, and different forms of cross-border interaction - flows of goods, services, capital, labour, people and ideas - and becoming increasingly intertwined. Systems (traditional methods of global governance and ideologies) to govern these trends and global challenges are coming under pressure and the paradigms they are based on are being scrutinized. New powers driven by knowledge are emerging and demanding their space in global governance. Some of these things are happening in silence in some countries, while in others there is animated debates. In Africa, there are very little public debate about these issues - neither about any country’s international engagements nor about the strategies and concrete suggestions to reform the systems. Foreign and trade policy, education and social services policies, are too often left to the respective ministries or departments of government, reducing the level of participation, awareness and national support. At regional level this reduces the width and depth of the integration process.

Around the world, governments and businesses face a challenge of high levels of youth unemployment and a shortage of job seekers with critical skills. This is the same puzzle faced by the five East African Community Partner States, raising four crucial questions:

a) How can a country successfully move its young people from education to employment?

b) What are the problems?

c) Which interventions work?

d) How can these be scaled up?

In East Africa, over the last fifty years, two things seem to define the structure of education, work and economy - unpreparedness, and procrastination.

Unpreparedness: For close to two decades a worldwide market has been developing in low-skill labor. During this period the work requiring low-skills has gone to those countries where the price of low-skill labor has been the lowest. So that if EAC-PS were prepared to compete in this market, it could embrace decline in wages and very long working hours. Alternatively, it could abandon low-skill work and concentrate on competing in the worldwide market for high-value-added products and services. To do this, it might have to adopt internationally benchmarked standards for educating its students and its workers, because only countries with highly skilled workforces could successfully compete in that market.
**Procrastination:** East Africa faces three major constraints to development. First is the availability of capital. The level of investment is directly related to the savings process. The domestic savings in the region are not high enough to support faster industrialization. The second constraint is lack of the appropriate manpower, especially in the middle level cadres. Third is the pace at which technology is changing. In this fast moving and fast growing jet age, everything including technology, thinking, people, processes, and policies have changed to more dynamic pattern. Yet one thing that has not changed and refuses to change is the rigid workplace of the last century. It is amazing in the digital age that most work, in the EAC-PS, is still associated with industrial age work rhythms and the symbolic chains that tie workers, knowledgeable and otherwise, to fixed locations.

Unpreparedness and procrastination have ensured that over the last 50 years EAC-PS have watched their international counterparts increasingly get more education, and their young people get a better education as well. As their counterparts radically reformed their education systems the EAC-PS only took incremental reviews, which did not realize the envisaged changes. And this can be confirmed by studies which put the EAC students and young adults at the bottom of the pack in mathematics, science, and general literacy. While EAC relative position in the world’s education league tables has continued its long slow decline, the structure of the global economy has continued to evolve. Every day, more and more of the work that people do ends up in a digitized form. From X-rays used for medical diagnostic purposes, to songs, movies, architectural drawings, technical papers, and novels, that work is saved on a hard disk and transmitted instantly over the Internet to someone near or far who makes use of it in an endless variety of ways.

A review by the World Bank in 2013, shows that except for Rwanda, all East African countries are in the bottom half of the global rankings in mathematics and science education, out of 144 countries (Table 1).

<table>
<thead>
<tr>
<th>Country</th>
<th>2013 Quality of Math and Science Education Rank/144</th>
<th>2011 Quality of Math and Science Education Rank/144</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rwanda</td>
<td>62</td>
<td>-</td>
</tr>
<tr>
<td>Kenya</td>
<td>76</td>
<td>63</td>
</tr>
<tr>
<td>Uganda</td>
<td>109</td>
<td>101</td>
</tr>
<tr>
<td>Burundi</td>
<td>112</td>
<td>109</td>
</tr>
<tr>
<td>Tanzania</td>
<td>122</td>
<td>126</td>
</tr>
</tbody>
</table>

*Source: World Economic Forum Network Readiness Index (2012)*
A rising number of EAC workers at every skill level are in direct competition with workers in every corner of the world. The best employers the world over, are looking for the most competent, most creative and most innovative people on the face of the earth and will be willing to pay them top dollar for their services. This will be true not just for the top professionals and managers, but up and down the length and breadth of the workforce. Strong skills in English, mathematics, technology, and science, as well as literature, history, and the arts will be essential for many. Beyond this, candidates will have to be comfortable with ideas and abstractions\textsuperscript{5}, good at both analysis and synthesis, creative and innovative, self-disciplined and well organized. They will also learn very quickly and work well as members of a team, have the flexibility and dynamism to adapt quickly to frequent changes in the labor market as the shifts in the economy become ever faster and more dramatic\textsuperscript{6}. Those countries that produce the most important new products and services can capture a premium in world markets that will enable them to pay high wages to their citizens.

\textbf{1.2 Background to the Study}

This study was undertaken at the time when the biggest challenges facing employers is a shortage of up-to-date technical and professional skills. The drive for green environment, electric cars, new sources of energy, software-driven products and services, changes in the regulatory landscape, the explosion of mobile computing applications, Big Data and the Internet of things, and a shift toward service-based offerings all require new skills. Companies (like Motorola Solutions, Adobe, IBM, and Xerox) have made large investments for training their teams to evolve from product sellers to solution and industry experts. Other companies (like Ericsson, EMC, Lockheed Martin, and Cisco) have transformed their engineering teams to focus on new products in consumer electronics, Big Data, telecommunications, and cyber-security. This is challenging the universities as institutions charged with providing job-entry level skills to ensure that their graduates are relevant to the industry, and demonstrate potential for learning and growth.

The pace of technology change accelerates each year, creating even more demand for highly educated people. Research shows that 30\% of all new jobs in the next ten years in East Africa will require a college degree - distancing the earnings potential of college graduates from those without a college education. Will businesses wait for these gaps to be filled? Not likely—they tell us that they need stronger technical capabilities, and some are investing heavily in deep specialization programs, technical training, apprenticeships, and partnerships with higher education institutions. Others have in-

\textsuperscript{5} Ideas and abstractions are the first steps towards innovation. In fact innovation is about turning ideas into solutions that create value to a customer (employer). Therefore having ideas and abstractions is the first step into a solution, and the education system should provide students with competences to execute on this in order to create value. In this respect, the education system has two responsibilities - improve competences of the student, and enable the student to improve the employer’s experience.

\textsuperscript{6} These variable define the primary outcomes expected of our higher education system. They will indeed form the key descriptors of the qualifications framework at different levels.
house training institutions to provide these services. Essentially universities must provide a solution which the employers perceive as having value to them, compared to all the other options available to them. This solution should be comparable, universal, transparent, and high performing. This means the competences that higher education graduates should possess must be geared towards addressing actual problems or challenges faced by the employers.

In addition, research has established that more than 75% of indigenous start-up firms collapse within the first year, while 96% of new products fail to make a return on investment\(^7\) suggesting a fail at innovation. Reasons given for this performance are, among others:

- employees find it difficult to generate ideas;
- employees do not know what the customer wants;
- employees fail to execute on innovation projects; and
- company culture discourages innovative behaviour\(^8\).

The underlying reason for this is that the education system is designed in such a way that the focus is on teaching knowledge and skills, and evaluation of a student's success is based on tests which require correct answers to be produced. This discourages creative thought processes where there may be a multitude of appropriate answers which could differ from the listed correct one, and as a result, children are taught that while creative thought may be fun or useful in non-serious activities like playing or the arts (which are becoming less and less important parts of the curriculum in many schools), what is needed to succeed life is the ability to execute, rather than generate ideas.

Evidence supporting this comes from studies (PPI, 2009) - where students across age ranges were asked whether or not they were creative. On average, between the ages of 8 and 16, self-perception of personal creativity falls from 90% to less than 10%. This perception then continues into the workplace, where the perception is that the primary responsibility of an employee is to execute their tasks correctly and as told, especially if this is how performance is reviewed. In Table 2 below students were asked: Are you a creative person?

<table>
<thead>
<tr>
<th>Response</th>
<th>Lower Primary</th>
<th>Upper Primary</th>
<th>High School</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>90%</td>
<td>50%</td>
<td>10%</td>
</tr>
<tr>
<td>No</td>
<td>10%</td>
<td>35%</td>
<td>85%</td>
</tr>
<tr>
<td>Not Sure</td>
<td>.</td>
<td>15%</td>
<td>5%</td>
</tr>
</tbody>
</table>

Source: PPI Creativity in School - Unlocking Innovation, 2009, Nairobi

\(^7\) Nick Skillicorn, The Secrets of ongoing Innovation Success. Improvides Ltd, 2013
\(^8\) The trend in East Africa is that it is not only corporate culture, but also national culture is not oriented towards nurturing innovative behaviour.
The way to address this situation is to investigate what is important to the employer before designing training programs and other competence development initiatives. And the best way to do this is to find out what is implicitly happening, in how the employer uses your graduates from the local higher education institutions, those from competing universities, or even if there is a challenge which nobody had thought about yet.

Education is a multifaceted system with its roots in the society’s political, socio-cultural and economic context. Therefore, it has the cardinal responsibility of preparing the region’s required workforce with proficiency, competences and expertise needed to bring about change and growth. This emphasizes the need for national education systems to evolve and grow in tandem with the dynamic needs and demands of the society, while mindful of the factors of access, equity, quality, affordability and relevance to society, the labour market and culture, and to expectations of both the local and international communities. One cardinal feature we can consider is an examination on how higher education can respond to these challenges, both at system and institutional levels, and on the contribution that IUCEA could make to support Partner States and their higher education institutions in developing their own national qualifications frameworks and in facilitating the process of change and development towards a harmonised education system in the region, which is internationally understood, recognized, and respected.

**Just what is a qualifications framework and where does it come from?**

Over the last ten years a number of countries around the world have adopted national qualifications frameworks (NQFs), with over 100 countries now implementing, or developing, or considering NQFs, or involved in regional qualifications frameworks. The implementation of qualifications frameworks has also been widely endorsed by major international organizations and bilateral agencies, and is often supported by aid money and even loans.

For us to understand a qualifications framework, we must first understand what a 'qualification' is. The Organization for Economic Cooperation and Development (OECD, 2007, pp.21-22) provides the following definition of ‘qualification’:

> A qualification is achieved when a competent body determines that an individual has learned knowledge, skills and/or wider competences to specified standards. The standard of learning is confirmed by means of an assessment process or the successful completion of a course of study. Learning and assessment for a qualification can take place during a programme of study and/or workplace experience. A qualification confers
official recognition of value in the labour market and in further education and training. A qualification can be a legal entitlement to practice a trade.

Qualifications have also been linked to official statements that an individual has been accepted to practice in a certain area (a medical doctor, a lawyer, an accountant, plumber, or teacher). However, over the last three decades reformers of qualifications systems, including the advocates of qualifications frameworks, have suggested the need to separate the institutions in which individuals obtained education and training and the qualifications obtained.

A review of official policy and communication documents in higher education institutions and government agencies, relating to qualifications frameworks, reveals that the word ‘qualification’ has been used to refer to the sets of formal requirements for awarding official recognition of an academic or professional nature. We could rightly say it’s the statement of learning outcomes and associated requirements for conferring awards. We understood from the higher education institutions, professional associations and employers that qualifications are created or designed, presently by the teaching and examining bodies. In this particular case, for higher education institutions, each institution is a teaching and examination body of its own and is responsible for the design of the qualifications it awards.

*Just, what is this design or creation?*

Design or creation of a qualification refers to the official development of a set of requirements for the awarding of the qualification in practice. It comprises the requirements for the award of a qualification, including ways of regulating and listing the specific qualification and the minimum requirements for is to be awarded, and how it should be captioned and carried.

Within this context, therefore, a qualifications framework would refer to sets or structures of qualifications designed or created by a nation or regional block to facilitate award of qualifications to deserving graduates within a defined criteria. The framework is also designed to link the education system to the employment and business sectors. More importantly, the framework should aim at addressing specific objectives, for instance:

- Creating confidence in qualifications that contribute to national development obtained by recognizing qualifications and competences obtained through formal, informal and prior learning;
- Developing a structure to support pathways that provide access to qualification that contribute to skills and competence development and life-long learning;
o Alignment of the NQF with international qualifications to enhance national and international mobility of graduates and workers; and
o Strengthen national regulatory and quality assurance systems for education and training.

**1.3 Expectations of the Study**

This study aimed at establishing the qualifications gaps existing in the region’s higher education systems versus the region’s human resources needs and provision for harmonization of higher education and training systems and mutual recognition of qualifications. It was also designed to improve the understanding of the issues pertaining to implementation of national and regional higher education qualifications framework. Particularly the study was:

- an inventory of skills and qualifications gaps;
- an examination of the extent to which Partner States have developed and are implementing NQFs; and
- an expression of the direction EAC should take in promotion of human resource development and productivity through higher education.

In addition the study was also meant to identify the certification procedures among the regular and vocational, technical and professional education and training and skills and competences assessment, industrial attachment arrangements recognition of prior-learning and in country and cross border student placement schemes. The task of this study was also to provide information that assists in fast-tracking the harmonisation of higher education in the region; implementation of a Regional Quality Assurance (RQA) system whose framework has already been developed and continues to be consolidated to inform the development of the Regional Qualification Framework (RQF).

**1.4 Interpretation of the Terms of Reference**

The nature of the problems facing higher education in East Africa call for a comprehensive, system-wide and institutional-level reforms. However, any attempt to formulate a new policy framework must draw on a wide variety of viewpoints. This requires higher education stakeholders in the Partner States to be involved in the debate on the needed higher education reforms, and subsequently participating in the implementation of the conceived reform interventions.

The main challenges facing higher education in the EAC Partner States as they seek to position themselves to become knowledge-based economies, to transform into middle-income status, and steady up for industrialization, could be grouped under three main areas:
(a) **Relevance:** The role and place of higher education in society; its mission and functions, programmes, content and delivery systems, as well as equity, accountability and financing issues, while emphasizing academic freedom and institutional autonomy as the principles underlying all efforts to assure and enhance relevance;

(b) **Quality:** The multidimensional concept embracing all main functions and activities in higher education; including orderly design and execution of programmes aimed at producing products with quality that is acceptable by the stakeholders;

(c) **Internationalization:** The need for regionally coordinated human resources development programmes within harmonized curricula, quality assurance systems and qualifications to enhance compatibility, comparability, and competitiveness of the higher education enterprise and products, regionally and internationally.

### 1.5 Approach and Methodology of Study

In compiling this report we took evidence from a range of sources. A list of the institutions and organisations consulted in each Partner State of the EAC is in the Annex 1.

**Selection of Institutions and Private Sector Firms to Participate**

The selection of institutions to participate in this study was based on an attempt to balance a range of criteria.

- Higher Education Institutions were to be bonafide members of the Inter-University Council for East Africa, and fully accredited by their national Council/Commission for Higher Education/universities;
- Each university selected to participate had to meet the criterion of there being at least some progress in the implementation of a quality assurance system, a demonstrated credit system or running competence-based training system;
- Private Sector included the national associations/federations/alliances of businesses and employers. These associations participated as representative organisations and were also required to identify and recommend firms from their membership to participate in the study as individual respondents.

The frameworks in the study include a range of differences with regard to scope:

- Two countries in the study (Rwanda and Tanzania) have comprehensive frameworks
• Four cases in the study (Kenya, Rwanda, Tanzania and Uganda) have attempted or are attempting to implement comprehensive NQFs. They all include an outcomes-based sub-framework, a framework for one sector of the education and training system, for skills/workplace learning certificates, and in one case for all vocational education.
• Three cases in the study (Kenya, Tanzania and Uganda) have frameworks which were designed only for technical vocational education and training. Sometimes this includes workplace training.
• Three of the countries (Kenya, Tanzania and Uganda) have equivalency frameworks in basic education.
• Two of the frameworks in the study (Rwanda and Tanzania) have NQFs for higher education.
• The study did not examine any frameworks which were only for higher education.

Data Collection and Analysis

Phase 1: Activity 1 - Content Review

The Team to the Regional Higher Education Qualifications Framework supported by Focal Point persons in the national commissions of Partner States responsible for higher education in all the five Partner States conducted a thorough and comprehensive desk-based review of available data and analysis on current practices of admission, assessment, examination and award of qualifications in higher education. The Team also reviewed government research and statistics, think-tank publications, university publications and academic journals in order to construct an informed picture of the current situation and the key issues influencing the process and outcome of qualifications. Following this review an inception report was produced and field investigation questionnaires targeting policy, higher education administration, programs and units, students and the labour market was developed. Content review also informed discussions with key informants to this study.

Phase 1: Activity 2 - Key Informant Interviews with Higher Education Providers, Employers and Businesses, and Government Agencies

Key informants were selected from among the Universities accredited to IUCEA through their national higher education commissions/councils. The team of experts held discussions with 36 universities across the EAC region, 15 business and employer representative associations and federations, and 16 government ministries/departments and or authorities/agencies (MDA). Consultations at universities included the vice-chancellors and other members of the senior management team, the heads of admissions, registrars and student services teams. At Government level the Experts held consultations with Chief Executives and/or Executive Secretaries of the Commissions/Councils responsible for Higher Education in each Partner State, Directors of Education/Higher Education in the Ministries of Education...
and the Permanent/Principal Secretaries of Education. Discussions with the representatives of the business and employers associations included consultations with the Executive Directors of the Private Sector Foundations, Employers’ Associations and Manufactures Associations in each Partner State. Guiding documents for interviews were supplied, but individual Team members developed schedules of interviews based on what was applicable in each country based on the education system and the level of qualifications framework.

As qualifications frameworks in these countries are still in the preliminary stages, except for Rwanda which boasts seven years and Tanzania five years, the implementation cannot be said to have taken off. As a result, the discussions focused on: what informed the development of the NQFs; the process followed in the development of the NQF; who was involved and why; what has and has not been achieved by the NQF and why; and the lessons they might be willing to share from the experience of introducing the NQF in their country.

Based on discussions with the key informants the Team was able to decipher information on a number of issues related to the design, installation and implementation of the NQF. This information relates to a number of fields among them:

<table>
<thead>
<tr>
<th>The Design Purpose and Process</th>
<th>Design Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>why a qualifications framework was decided upon,</td>
<td>the main design features of the qualifications framework,</td>
</tr>
<tr>
<td>how it has been/is being designed,</td>
<td>the ways in which it is intended to achieve its objectives, and</td>
</tr>
<tr>
<td>the progress that has been made,</td>
<td>how it will overcome weaknesses of the existing qualification system.</td>
</tr>
<tr>
<td>the problems that have arisen</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Achievement of Goals</th>
<th>Application of the Framework</th>
</tr>
</thead>
<tbody>
<tr>
<td>the likelihood of their respective framework achieving its goals;</td>
<td>the extent of the use of the qualifications frameworks ;</td>
</tr>
<tr>
<td>what changes might be needed.</td>
<td>the extent to it was serving their needs;</td>
</tr>
<tr>
<td>If the framework was still in the initial stages of development, the team attempted to understand the extent to which stakeholders feel that, given the design and implementation strategies, it is likely to be used and to succeed in achieving its objectives.</td>
<td>how well they were achieving some or any of their broader goals.;</td>
</tr>
</tbody>
</table>
The Team collected and summarized official documentation, including the statements on:

- The national education philosophy
- The Higher Education Policy
- student admission, assessment, examination and exit
- How the qualifications framework is expected to work;
- Actual qualifications and level descriptors (if they existed);
- Descriptions about the roles of different stakeholders;
- Evidence of impact, such as information on uptake of qualifications, results of evaluations or reviews, and so on, where such information was available.

Documents were collected from higher education institutions visited, the official agency responsible for higher education (and possibly qualifications framework), and ministries of education and labour.

**Phase II: Administration of Field Questionnaire**

The second phase of the research included the administration of a structured questionnaire addressing a wider range of stakeholders and important role players/users, with a focus on understanding the use, implementation, and impact of the qualifications framework (in some cases this may be only in the design or initial implementation stage), as well as further information on what those interviewed feel the framework will achieve. The field questionnaire targeted

(a) Government authorities responsible for higher education in the Partner States;
(b) Managers of higher education institutions;
(c) Programme and course coordinators in higher education institutions;
(d) Directors/Coordinators of units/subjects/modules;
(e) The learners; and
(f) Labour market coordinators working with higher education institutions.

The administration of the questionnaire was done by the Focal Point Persons (FPPs) from national agencies responsible for higher education and the qualifications framework. The Team of Experts was in contact with the FPPs for feedback, guidance, and review during the process of conducting interviews as well as writing the Country Status Reports. This helped ensure that the Country Status Reports remained as comparable as possible, while allowing flexibility in the approaches taken by individual members of the study team.
Study Limitations

In carrying out this study we experienced a number of limitations, among them the following:

1. **Time was Limited**: This study was conducted and completed in less than three months, giving Country study teams, team of experts and Facilitator severe time constraints. As one would expect,
   a) this limited the amount of information which could be collected, the amount of analysis which could be conducted, and the possibility of engaging with theoretical literature and available documentation on NQFs on a wider range;
   b) it enabled the production of a research report which contains considerable empirical information and data about qualifications frameworks in an area suffering from a great lack in this regard; and
   c) it provided a basis for future studies to develop a far more complete picture and analysis of qualification frameworks in the EAC region.

2. **Scope of Study**: The scope of this study was wide and covered all the five partner states with their diversity - in education systems, language and institutional arrangements. As expected, there were difficulties of terms used in different ways, as well as institutions, systems, and processes which are taken for granted inside a country and not made explicit, but may lead the same policy to be manifested very differently. Therefore:
   a) The study Team put in tremendous effort to acquire systematic parallel data on different the different educational systems; and
   b) Qualifications frameworks are particularly problematic as they are arguably the product of global comparisons and internationalization as much as they are an object of study within these areas.

3. **NQFs in Initial Stages of Development**: Most of the qualifications frameworks (Tanzania, Kenya, Uganda, and Burundi) are in their early stages of development. The region, is therefore still struggling with design and implementation of qualifications frameworks than about impact. Even Rwanda, with seven years, has no impact data to share with the rest.

4. **Limited Knowledge on NQFs**: Only a small number of persons in higher education institutions, government and the corporate sector have some knowledge of what a qualifications framework is. Often these are the persons who have, at one time or the other
   - been tasked with the development of the national framework,
   - attended a IUCEA meetings on a qualifications framework,
• are in charge of quality assurance in their institutions, or
• participated in a government team to the EAC on mutual recognition of qualifications discussions

On the other hand, some institutions send only one person to the Key Informant Interview discussions - Deputy Vice Chancellor Academic Affairs or the In-Charge Quality Assurance, limiting scope of exploration. However, in cases where the meetings were attended by more than one representative, and staff from different departments information on QF was sometimes confusing but rich.

5. **Confusion and Tension between TVET and Higher Education Institutions**: Across the region, there exists some confusion and or tension
   • Between institutions of technology (offering diploma and degrees) and universities (awarding degrees) as to who qualifies to be in NQF, and as to whether universities should have their own qualifications framework and the TVET institutions their own. If this is the case, who should this study target from higher education qualifications framework - universities or TVETs or both.
   • Further questions arise on the recognition of informal learning, as to how and by whom the assessment would be undertaken, who would award the certificates, how they would be linked to existing certificates, and what mechanisms should be put in place to ensure that they would be recognized by employers and educational providers.

1.6 The Past, the Present and the Future

The East African higher education system (particularly Uganda, Kenya and Tanzania) developed from the Makerere Technical College which from its inception in 1922 served the education needs of Uganda, Kenya, Tanganyika, Zanzibar, Zambia and Malawi. In 1949, Makerere became a university college of the University of London in line with the recommendation of the Asquith Commission on Higher Education, and up to 1956 it was the only college providing university education in East Africa. The Royal Technical College was set up in 1956 as Kenya's first higher education institution with the primary goal of providing students with an avenue of enrolling for engineering and commercial courses not offered by Makerere. The programmes offered here led to a higher certification at The University of London, Britain. In 1958, upon the recommendation of a working party it was renamed the Royal Technical College of Nairobi and upgraded into a university college offering University of London degrees. In 1963, the Royal Technical College became the University College, Nairobi, following the establishment of The University of East Africa with three constituent colleges in Nairobi, Dar es Salaam and Kampala (Makerere). The University of East Africa offered programmes and degrees of the
University of London till 1966. In 1970, it was dissolved to create three autonomous national universities of Nairobi, Dar es Salaam and Makerere. With this done, each of the East African countries then concentrated on developing their own national universities.

During the colonial period and the immediate past colonial period, the East African countries were integrated and harmonized in the provision and training services through a harmonised education system and through established regional organisations and institutions. The East African National Examination Council ensured standardisation and quality assurance of education in East Africa. The University of East Africa served the region in higher education needs. The various colleges of the university were located in the then three Partner States each specialising in a specific discipline. This cooperation occasioned many interactions amongst the people of East Africa, but with the breakup of the former Community in 1977, this interaction was curtailed weakening the instruments of interaction and harmonisation of the basic education and training programmes, and therefore facilitating diversity in approach and implementation by each Partner State. However, since the re-establishment of the EAC and consequent the revitalization of IUCEA in 2000, IUCEA embarked on reforms that were geared towards the development of higher education system that would meet the expectations of the Partner States in the EAC integration agenda. This included among others harmonisation process to build an education as a service as well as a good business which should not be short-changed for profits, but promoted as a human and enterprise potential development catalyst for the socio-economic development of the region.

The education system in the EAC Partner States, following the establishment of few institutions before, during and the early days of post colonial era, was meant to provide the basics in life to ease communication between the colonial masters and Africans who provided the much needed white-collar job labour force. Furthermore, university education was a reserve for only a few privileged students who had access and academically excelled. At the independence time, this type of education could only be accessed abroad through competitively limited western-based scholarships. Since independence, major transitions and reforms in education system have been made focusing on access, equity, quality, affordability and relevance to the national philosophy and needs. Various policies and legislations have been put in place, and these have seen tremendous expansion of higher education institutions, by both public and private investment to meet the aspirations of rapidly growing national populations and economies.

---

9 And recently, after some disturbances in some Partner States (Uganda, Rwanda and Burundi) deliberate measures have been made by the respective governments to ensure uninterrupted access to education.

10 As we learnt during this study only two EAC Partner States have what could be described as a national education philosophy - Tanzania and Rwanda. The rest of the countries have national themes expiring with specific project targets and strategies.
The core problem is that our education and training systems were built for another era, an era in which most workers needed only a rudimentary education. It is not possible to get where we have to go by patching that system, in the name and form of reforms. There is not enough money available at any level of our intergovernmental system to fix this problem by spending more on the system we have.

If the EAC Partner States continue on their current course, and the number of nations outpacing them in the education race continues to grow at its current rate, the EAC standards of living will continue to fall relative to those nations, rich and poor, that are doing a better job at education. If the gap gets to a certain - but unknowable - point, the world’s investors will conclude that they can get a greater return on their funds elsewhere, and it will be almost impossible to reverse course. Although it is possible to construct a scenario for improving the region's standard of living, the clear and present danger is that it will fall for most East Africans. This will be compounded by surging population growth, from 128 million in 2010 to 233 million in 2050. Most of the people accounting for this population increase are expected to live in urban areas and to have higher incomes than currently is the case, which will result in increased demand for food. In the best of circumstances, the challenge of meeting this demand in a sustainable manner will be enormous. When one takes into account the effects of climate change (higher temperatures, shifting seasons, more frequent and extreme weather events, flooding, and drought) on food production, that challenge grows even more daunting. The global food price spikes of 2008, 2010, and 2012 are harbingers of a troubled future for global food security.

However, the Partner States can get where they must go only by changing the education system itself. To do that, the region must face a few facts:

1. That the Partner States recruit a disproportionate share of their teachers from among the less able of the high school students who go to college;
2. That the Partner States tend to tolerate an enormous amount of waste in the system, failing their students in the early years when the cost of doing the job right would be relatively low, and trying to remediate it later at much higher cost;
3. That this inherently inefficient system has gotten progressively more inefficient over time. While the Partner States may have recorded real gains, especially for minority and marginalised students, in recent years, those gains have been leveling off, and the gains have been modest in relation to the increase in per pupil expenditures over the last thirty years;
4. That the growing inequality in family incomes is contributing heavily to the growing disparities in student achievement;

---

11 As the world population grows from around 7 billion in 2012 to around 9 billion by 2050, the population of Africa south of the Sahara is likely to surge from around 850 million today to around 1.7 billion in 2050. East Africa alone will make up more than 44 percent of the population of Africa south of the Sahara and almost 9 percent of the world’s population in 2050.
5. That the education systems have failed to motivate most of the students to take tough courses and work hard, thus missing one of the most important drivers of success in the most strategically positioned regional economic cooperation (the EAC);

6. That the Partner States' teacher compensation system is designed to reward time in service, rather than to attract the best and brightest of the college students and reward the best of the teachers;

7. That, too often, the testing system rewards students who will be good at routine work, while not providing opportunities for students to display creative and innovative thinking and analysis;

8. That, the Partner States have built a bureaucracy in their schools in which the people who have the responsibility do not have the power, and the people who have the power do not have the responsibility;

9. That most of the people who will be in the workforce are already in it, and if they cannot master the new literacy at high levels, it will not matter what is done in schools; and

10. That although all the Partner States demonstrate an elaborate funding mechanism to provide funds to send young people to college and university to launch them in the careers of their choice, they have done a very poor job of making it possible for adults who have full-time jobs and family responsibilities to get the continuing education and training they need to survive in the world that is evolving.

1.7 Conclusion

This section suggests one thing - it is that we do not need new programs, and we need less money than one might think. The one thing that is indispensable is a new system. The problem is not with the education providers. It is with the system in which they work. That is what the IUCEA is focused on. And it is the implementation of this system that will take courage and leadership. That kind of leadership does not depend on technology alone. It depends on a deep vein of creativity that is constantly renewing itself. Now many students just slide through high school, because they know that all they have to do is get passes in their courses or a satisfactory score at Certificate of Secondary Education (KCSE), National Form Six Level Results, Secondary School Diploma, Advanced Certificate of Secondary Education (ACSE), or Certificate literacy test to go to college. With this system, they will know that they have to work hard in school to get anywhere, and, the evidence shows that is exactly what they will do.
II. The EAC in a "Catching-Up" Process

2.1 The Challenge

In our previous study we observed that the East African Community countries have a “catching-up process” as a goal with the Asian Tigers, who at one time in history (in the early 1960s) were socially, economically and politically at the same level with most of the EAC Partner States. Today, the Asian Tigers are miles and miles away in industrialisation and well-being because of having effectively applied factors, efficiency and innovation. A catching-up process requires a growth and transformation strategy. This strategy is inherent in the education and industrialisation culture, systems and structures.

To realize the catching up goal interactions between the academia and the employment and business sectors are even more important from now on, and this will require a lot of institutional strengthening and capacity building for the maturation of existing academia fraternity and their interactions with firms and society. This has implications on public policies, which must be proactive and institutionally creative to handle these challenges. Already, all the Partner States have reviewed and enacted new education policies and regulatory frameworks, industrialisation and industrial technology policies, and national research science technology and innovation policies with focus on areas of strength and to enhance potential for transformation. However, the EAC Partner States face the challenge of jumpstarting and sustaining a dynamic process of development and productive transformation, which requires sophisticated technologies and diversification into non-traditional and higher value added goods and services, the development of domestic competences and the transformation of employment patterns. As we have observed elsewhere (Kerre, M. 2013), increasing potentials - productive transformation and productive employment, are interrelated processes which in a worthy sphere create sustainable growth and high economic performance. This is the reason why we propose to define potentials in two dimensions:

---

12 Kerre, M. Academia Private Sector Partnerships in East Africa: Taking Stock of Academia-Private Sector Partnerships in East Africa, September 2013
13 In this context we define development as a process of economic and social transformation characterised by the adoption of more sophisticated technologies and diversification into non-traditional and higher value added goods and services, and the development of domestic capabilities and the transformation of employment patterns.
14 The fundamental concept of competency in RMCS is that it focuses on what is expected of an employee in the workplace rather than on a learning process or time spent in training or education.
15 With low levels of research, science, technology and innovation, and undeveloped national qualifications system, and an education system still deeply rooted in colonial adage, the Partner States will be required to invest heavily in the transformation process.
• in the opportunities and option space a Partner State develops to trigger and sustain the process of productive transformation; and
• the competences in taking advantage of the potentials and opportunities, and abilities for high performance

The first level of potential development involves individuals (human potential development) in terms of employability and competences. The second level is institutional - enterprise, government, the economy, and society - generally referred to as enterprise potential development. In both cases the focus is on resources, skills and attitudes.

The challenge for the EAC Partner States therefore, is twofold:

• to create an option space for jump-starting economic diversification, and
• to fuel the transformation process by enlarging the option space and by facilitating the accumulation of competences as envisaged in the industrialization policy and strategy, and during the industrialization process.

Diversification and employment are instrumental in providing learning opportunities in new technologies and activities. The nature of diversification and productive transformation shapes the nature of the competences accumulated in the labour force, in firms and in society at large, while the nature of competences accumulated in the economy, define the option space for further diversification into new products.

EAC Partner States differ in their economic, social, political, natural and cultural conditions. Each country has developed distinct productive, educational and knowledge structures, formal institutions such as the regulatory framework, and informal institutions such as social norms, attitudes, values and traditions. These structures and institutions imply alternative spaces and competences to replicate and adopt technologies, and to shift into new products and sectors. Each country therefore needs to analyze the particular constraints and opportunities it faces and design appropriate policies. Education, training, trade, investment, and technology policies are key policy areas to promote productive transformation, capabilities, productive employment and sustained catch up growth in the EAC Partner States.
Regional Integration within the EAC context means that more and more processes and problems are beyond the scope of national governments. Yet, there is no regional or global government to take over. Regional integration is instead a complex system of regional and intergovernmental negotiations, rules and institutions. Actors in regional integration seldom aim towards the global good, they generally pursue their national interests, since they have to account for their success at the regional bargaining table back home to their constituents. The results of this lack of "a regional mindset" is a system of regional governance that is skewed in favour of the mighty, an outflow of what can be called 'regional multilateralism' forcing the regional intergovernmental organisations to suffer democratic deficit, disadvantaging Partner States in decision making processes and also leaving many crucial decisions to technocrats. For the EAC regional integration, it means two things:

- on a continuum of opportunities, challenges and threats, regional integration engenders more challenges and threats than opportunities, and
- if opportunities are to exist they must be created, and the key to create these opportunities is information and knowledge about alternative resources, markets, technologies, products, and processes

### 2.2 Education and Industrialisation

The educational structure of the labour force determines the options of the economy for diversification which highlights the role of education policies in stimulating and fuelling a process of productive transformation. Empirical evidence from successful catching up countries shows that educational transformation preceded productive transformation. Countries like Ireland, Costa Rica, Korea, China, Taiwan and Singapore had created a wide option space for diversification into low and medium technologies by investing heavily into primary and lower secondary education, but at the same time also investing in higher and post secondary education as part of their industrialization strategy.

EAC Partner States differ significantly in terms of their educational structures, and they therefore have different options for diversification, industrialization and productive transformation. At the same time the Partner States vary greatly in many aspects of their approach to education and training, including the proportion of the age group enrollment at all levels of education, and marked differences can also be seen in primary and secondary education systems language of teaching and composition of subjects covered, although there are no major differences in terms of the total number of years in pre-university education in general. However, investment in education and training in EAC Partner States have not been tied to the national industrialization strategies.
Table 3: The Education Structure in the EAC Partner States

<table>
<thead>
<tr>
<th>Country</th>
<th>Structure (Yrs)</th>
<th>P</th>
<th>Secondary</th>
<th>Total S</th>
<th>Total PUGE</th>
<th>Min U</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>S</td>
<td>LS</td>
<td>US</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Burundi</td>
<td>6-3-3-4</td>
<td>6</td>
<td>N/A</td>
<td>3</td>
<td>3 N/A</td>
<td>4</td>
</tr>
<tr>
<td>Kenya</td>
<td>8-4-4</td>
<td>8</td>
<td>4 N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>4</td>
</tr>
<tr>
<td>Rwanda</td>
<td>6-3-3-4</td>
<td>6</td>
<td>N/A</td>
<td>3</td>
<td>3 N/A</td>
<td>6</td>
</tr>
<tr>
<td>Tanzania</td>
<td>7-4-2-3</td>
<td>7</td>
<td>4 N/A</td>
<td>N/A</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Uganda</td>
<td>7-4-2-3</td>
<td>7</td>
<td>4 N/A</td>
<td>N/A</td>
<td>2</td>
<td>6</td>
</tr>
</tbody>
</table>

Legend:
P = Primary, S = Secondary, LS = Lower Secondary, US = Upper Secondary, PUGE = Pre-University General Education, U = University, Min = minimum, A = Advanced level education

Source: Field Survey and Analysis December 2013-January 2014

Education and training services sector in the EAC Partner States broadly comprises school education, higher education, and industrial/technical training including vocational training. The table above indicates that the duration of going through the complete cycle of the entire education system in the Partner States differ to some extent, albeit not significantly. For the purposes of this report, what would be more important apart from the time actually spent in school are the competencies acquired at the completion of each cycle and whatever differences there could be\(^1\). A system could for example take one or so years more than the other but the competencies acquired could be comparable.

The Partner States have on average a higher education enrolment rate of below 4.5 and an average year of schooling of about 4.2 years and they seem to lack the knowledge base in the labour force which is required for jumpstarting an industrialization process, and shifting the economy out of traditional activities. These countries are further distinguished according to the educational structure they have developed and its contribution to gross domestic product (GDP). The share of the manufacturing sector to GDP has continued to register marginal changes since 2011. Burundi registered the highest share of 13.4 percent followed by Kenya with 9.4 percent, Tanzania (9.3 percent), Uganda (8.5 percent), and Rwanda (6.6 percent), on average 7.8 per cent for the region. This reveals three things about the education system and structure:

- Relatively high shares of primary education (incomplete and complete) which indicates priorities for investment in basic education, and very small shares of secondary and tertiary education. As a result they have achieved the smallest shares in indigenous manufacturing, with an average share in GDP of as high 7.8 percent; or

\(^1\) These differences are of great concern to students desiring to pursue higher education in other Partner States. At the same time, the Mutual Recognition Agreement has not assisted university administrators in resolving this issue. These and others form the realities that the EAC has to face and address.
• a much more polarized educational structure reflecting unequal education societies, unable to develop a broad knowledge base in the labour force. The primary education base which is needed to enter low or medium technology manufacturing on a broad scale and to trigger a dynamic process of productive transformation, is weak and developed without focus on the labour market.

• That the relatively higher investments in secondary education do not generate higher option values and returns in terms of productive transformation, but provides the option to enter more advanced technologies and activities - indicating the potential for a wide services industry for building a creative economy.

The Partner States with the highest option space to diversify the production structure and to continue transforming the educational structure are those which have achieved average years of schooling of above 4.5 and drastically reduced the share of non-schooling, and which have at the same time managed to develop a balanced educational structure as the educational level of the labour force increases.

2.3 The Context of Harmonization of Higher Education and Professional Services in the EAC

2.3.1 Regional Integration

Theories of regional integration provide some theoretical foundation in studying the nature, process and outcome of regionalism trends since the efforts to integrate higher education policies and professional services are part of a more general process of integrating sovereign states in new political and institutional order. For this purpose we shall explain regional integration as a process which is interlinked across various sectors with a spillover effect. The principle of spillover is the notion that integration between states in one economic sector will create strong incentives for integration in other sectors, in order to fully get the benefits of integration in the sector in which it started. That means spillover is the process whereby a given action, related to a specific goal, creates a spiral effect - a situation in which the original goal can be assured only by taking further actions, which in turn create a further condition and a need for more action.

2.3.2 The Concept and Instruments of Harmonisation

In a regional integration context, we propose to use the term ‘harmonization’ to imply or carry the same meaning as integration, cooperation, partnership, collaboration, coherence, and alignment. The notion of harmonization and its conceptualization is imbedded in the economic theory of convergence and integration. Harmonisation first emerged as an economic driver during the industrial revolution in Europe referring to the process of creating common economic and market area for free flow of capital
and labour in a particular region\textsuperscript{17}. While, in the education context it was first coined, again in Europe, in European Higher Education Area (EHEA) as a central element in the Sorbonne Declaration of June 1999, and signed into the reform plan of European higher education system. Based on this experience, the African Union (AU) has also developed a framework to harmonize the higher educational system in the region.

In the EAC perspective, this concept derives from the tenets of the Protocol for East African Community Common Market (PEACCM) and it involves narrowing of variance in structural factors, processes, qualification frameworks, quality standards, degree cycles, and credits, and coordination of different systems of higher education through the elimination of major differences and creating minimum requirements or standards and ultimately a common code of practice for a common higher education area. The Treaty Establishing the East African Community sets out the ambition of the Partner States to create an East African Common Market. It provides in Article 76 for the negotiation of a Common Market Protocol which is intended to set out in more detail how the integrated single market in East Africa is to be achieved. Article 104 of the Treaty also commits the Partner States to adopt “measures to achieve the free movement of persons, labour and services and to ensure the enjoyment of the right of establishment and residence of their citizens within the Community”.

The PEACCM was subsequently concluded in 2009 and entered into force on 1 July 2010. It provides for free movement within the EAC of goods, persons, labour, services and capital and for equal rights of establishment and residence. The PEACCM is itself supplemented by five annexes which set out more detailed provisions on each of the rights and freedoms and on the general removal of restrictions on cross border provision of services. Article 11 of the PEACCM brings out the commitment on mutual recognition by stating that for the purpose of ensuring the free movement of labour, the Partner States undertake to:

\begin{itemize}
  \item[a.] mutually recognise the academic and professional qualifications granted, experience obtained, requirements met, licences or certifications granted, in other Partner States; and
  \item[b.] Harmonise their curricula, examinations, standards, certification and accreditation of educational and training institutions.
\end{itemize}

In this respect, therefore, harmonisation should be seen to be applied when the need arises for widening and deepening the integration process by creating space for commonalties, comparability, institutionalization and internationalisation of the integration process and or practices. It defines the scope, scale, degree, extent and content of the integration process through education. It is the thread that defines the level of commitment to action in driving the integration process, leveling out the

\textsuperscript{17} At this time in the history of Europe it had the same meaning as convergence - the forces that make different economies more alike, the narrowing of variances in policy formulation and implementation
extent to which partners are able to cede some of their sovereignty as they strengthen their identity and ownership of the integration space.

Fears, challenges and concerns exist in the EAC region on what harmonisation actually would do. Many have perceived it to mean uniformity, standardization, regulation, condensation homogenization or unification of all higher education systems. Rather, harmonisation refers to the coordination of educational programmes with agreements to minimum academic standards and ensuring equivalence and comparability of degree programmes and recognition of their equivalencies across the continent, thus facilitating the promotion of quality and mobility of both staff and students in the continent (AAU, 2007).

2.3.3 Harmonisation of Higher Education

Harmonisation, presupposes the existence of a well developed education and academic infrastructure. Academic infrastructure is a set of interrelated reference points that provide means of describing and maintaining academic standards and practices. This infrastructure is essential for establishment of a higher education system responsive to the diverse needs of the education system. The universities that have employed this system have received ISO certification, making their governance and programmes internationally recognisable. In this regard the IUCEA has, over the last decade, worked with the higher education sector in the region to establish the following parts of the academic infrastructure: regional committee on harmonisation, subject benchmark statements, programme specifications and quality assurance system in higher education, harmonisation of accreditation of education and training institutions, and harmonisation of education structures. In partnership with German Academic Exchange Service (DAAD), and in collaboration with the national higher education commissions/council and member universities, IUCEA is implementing a capacity building and supporting institutional and teaching capacity development to improve and strengthen governance in higher education institutions. It has recently concluded two studies on higher education fee structure and financing; and academia-private sector partnerships.

The collaboration with DAAD has addressed issues related to policy dialogue, human resources capacity development, development of a quality assurance system and in carrying out pilot evaluation of programmes. An external evaluation of the program in 2010, especially the quality assurance component, led to the redesign with emphasis on widening and deepening, and scaling up the initiative in all member universities in the following areas:

(a) Dialogue, Sensitization and Training of Leaders of Universities:
(b) Development of Higher Education Quality Assessment Tools:
(c) Establishment of a regional quality assurance framework

(d) Training of quality assurance/officers coordinators for internal quality assurance, particularly

- by sponsoring and overseeing pilot self-assessment of university programmes. For the pilot self-assessment process each university chose one or more of the following programmes: Business Studies, Information Technology/Computer Science, Environmental Engineering, Agriculture, Education (with English Language), Human medicine or Natural Sciences;
- Training of peers for external programme review; and
- Pilot external programme evaluation

(e) Institutionalization of internal quality assurance mechanisms in universities in the region. The institutionalization of the Quality Assurance Handbook required establishment of quality assurance structures and systems in universities. Such institutionalization is being implemented in a number of universities in the region through the development of quality assurance policies, systems and coordination units, appointment of quality assurance officers/coordinators, provision of facilities, and financial facilitation for operationalization of the quality assurance systems. Thus, about 47 university institutions in the region are now using the Quality Assurance Handbook in their internal quality assurance processes; and finally

(f) Mainstreaming of the lessons learnt into quality assurance processes at universities and national commissions/councils. It can be noted that the Quality Assurance Handbook is already strengthening quality assurance practices in universities in the region and the national commissions/councils are implementing the lessons learnt from the pilot self-assessment and external evaluation processes already carried out, in such areas as:

- Incorporating learning outcomes in the programmes and courses for determining accreditation status of programmes by the national higher education commissions and councils;
- Benchmarking becoming an important requirement for all new programmes submitted to the national commissions/councils to be considered for accreditation, in which case learning outcomes have also to be aligned to institutional, national, regional and international goals of the developed programmes;
- Additional experts for programme evaluation for accreditation purposes and institutional accreditation (university status) at the national level have been added to the databases of the national higher education commissions/councils in the Partner States; and
- Universities are adopting the Quality Assurance Handbook instruments when designing and developing new academic programmes, and during programme reviews processes.

It is worthwhile to mention that this initiative started at an opportune time when the region was experiencing many challenges brought about by the dynamics in higher education, which include the
exponential expansion of the number of university institutions and heightened student enrollment levels as triggered by the rapid increase in demand for access to higher education in each of the Partner States in the region. Furthermore, globally education has become a tradable commodity across borders and hence there have been efforts to institute international safeguards that would ensure maintenance of international quality standards in the education being delivered across borders. Further still, during the past 10 years student mobility within East Africa has increased tremendously as the result of expansion in private higher education delivery, hence creating the need to institute mechanisms for establishing comparability of the quality of education provided by universities so as to maintain inter-institutional comparability of the quality of the academic programmes and the quality of the graduates.

Most importantly, the signing and operationalization of the EAC Common Market Protocol in 2010 and the EAC aspirations to harmonize education systems in the region are significant impetuses for IUCEA as an EAC institution responsible for strategic development of higher education and research. IUCEA can build on achievements, experiences and lessons learnt from the quality assurance initiative so as to spearhead the envisaged regional integration agenda through higher education development, as mandated in the IUCEA Act 2009.

With the implementation of a qualifications framework, higher education awarding bodies are to use this infrastructure in the management of standards and quality of their programmes and awards. At the same time, IUCEA will use this infrastructure as a reference point in reviewing the effectiveness of HEIs’ management of academic standards and the quality of learning opportunities. Of particular importance are benchmarking statements, and programme specifications that interact, linking the nationally agreed framework, subject communities and institutions. However, within its current capacity, IUCEA will be overstretched and may not be effective. It may be necessary to restructure.

2.3.4 Harmonisation of Professional Services in the EAC

Many of the rights and freedoms contained in the PEACCM are relevant to East African professionals who are members of regulated professions and who wish to exercise their professions elsewhere in the EAC. However, the two most directly applicable provisions are found in Article 5.2(e), which states that the Partner States agree:

“To remove measures that restrict movement of services and service suppliers, (and) harmonise standards to ensure acceptability of services traded”

And in article 5.3(a), which states that, in order to facilitate the implementation of the PEACCM, they will “Co-operate to harmonise and to mutually recognise academic and professional qualifications”.
Within this framework the mutual recognition agreements (MRAs) have been implemented for Accountants, Architects and Engineering professionals. The Matrix 1 below summarises the experience.

Matrix 1: Status of Professional Groups within the EAC Mutual Recognition Agreement

<table>
<thead>
<tr>
<th>Country</th>
<th>Accountants</th>
<th>Engineers</th>
<th>Architects</th>
</tr>
</thead>
<tbody>
<tr>
<td>EAC Registered (Firms)</td>
<td>1,500 firms</td>
<td>9</td>
<td>22</td>
</tr>
<tr>
<td>Burundi (individuals)</td>
<td>250</td>
<td></td>
<td>41</td>
</tr>
<tr>
<td>Kenya (Individuals)</td>
<td>11,800</td>
<td>1,400</td>
<td>1,400</td>
</tr>
<tr>
<td>Rwanda (individuals)</td>
<td>248</td>
<td>150</td>
<td>36</td>
</tr>
<tr>
<td>Tanzania (individuals)</td>
<td>2,793</td>
<td>3,625</td>
<td>349</td>
</tr>
<tr>
<td>Uganda (individuals)</td>
<td>1,700</td>
<td>302</td>
<td>209</td>
</tr>
<tr>
<td>Licensed (individuals)</td>
<td>16,613</td>
<td>5,477</td>
<td>2,305</td>
</tr>
</tbody>
</table>

Comments

The EACIA MRA has not yet received official endorsement from the EAC and this is felt by the competent authorities to have held up awareness raising across the region. There has also been little engagement between the CAs and the EAC secretariat.

There is a concern that the accreditation of institutions is not being kept up to date and although the MRA had had the practical impact of improving information sharing. It was felt that it was too early to say it has had a practical impact on education standards or practice.

Highly discriminatory registration fees for local architects and those registering from elsewhere in East Africa appear to have persisted despite the MRA. In Tanzania for example, local architects must pay a registration fee of BSP £400 whilst foreign firms must pay USD $5,000 plus $10,000 for each project handled.

Source: Field Survey December 2013 - January 2014

The use of the MRAs in the three sectors, has been very limited but this is not surprising given the fact that they have only been in force for a very short period of time. This is also largely be attributed to the very low level of awareness of the MRAs as a result of a lack of formal involvement by the EAC in the negotiation of most of the MRAs and to the fact that they were not considered to be sufficiently ‘official’.

Whilst competent authorities have done reasonably well in fulfilling their obligations under the MRAs, there are still issues such as differences in fees which could be ironed out. Further, many of the unresolved issues around the sectoral MRAs agreed to date have arisen because the process of

---

18 EABC Study into the Functioning of Mutual Recognition Agreements in Professional Services in the East African Community, 2012
negotiating them was not connected into the wider context of the PEACCM. In other words, the MRAs needed to be more directly connected to annexes II and V and to progress in harmonising educational and qualification frameworks.

2.4 Towards a Paradigm Shift

2.4.1 Leadership: Shifting the Mindset
The mobility of human society requires continuous rethinking and adjustment of our mind-sets and approaches to issues. This millennium shall be characterized by radical changes in many areas, especially in the structure and conduct of business. The idea of reflecting on the role of higher education in the unfolding environment is, therefore, something that each Partner State, the EAC, the labour market and the higher education institutions should be doing. The first essential component of the corporate culture that the new environment requires is leadership. In the last millennium emphasis was laid on producing business managers rather than leaders. The difference between the two is that managers stress doing things right, according to some established tradition, while leadership stresses doing the right things.

As the higher education institutions embark on producing leaders for the 21st Century, three important attributes (space, vision and empowerment) must be taken into account: (i) an understanding that students bring talent and creativity to the field of efficiency especially if we provide a venue to inspire and educate them, (ii) the ability to work out a coherent and clear vision, (iii) the ability to articulate this vision and to empower every other person to actualize it. This empowerment is important as it is in essence a way of releasing, harnessing and focusing the creativity of the entire workforce in the realization of the vision.

2.4.2 Training Policies: Upgrading Informal Apprenticeship Systems

Productive transformation to widen the base for middle-level skills requires competent workers, artisans, and craftspeople with the capabilities to adopt more advanced technologies, and diversify into new activities and trades, as well as the social capabilities to train young people and the labour force in the required competences and occupations. Most Partner States are in the process of re-engineering the apprenticeship training which represents the main road to skills development. With more than 3,000 training institutions with less than an enrolment of 350,000 students, the sector is contributing less than the requirements of the labour market. The Partner States may consider employing informal apprenticeship training which represents the main pathway to skills development.

---

19 Formal training systems tend to be costly, providing training to only a small share of the labour force and therefore, embody limited social capabilities to support the productive transformation process.
Case Study: Tanzania Apprenticeship Training

Findings from Tanzania shows that informal apprenticeship is regulated by “smart” institutions. Substantial apprenticeship training is provided in micro- and small enterprises, apprenticeship is widespread and well established in the various craft sectors. Data also shows that informal apprenticeship has the potential for upgrading, and being transformed into an effective training system in the EAC Partner States. Most apprentices have at least achieved primary education, and about 10 percent have finished lower secondary education. Master craftspeople tend to be the positive selection among former apprentices as they have achieved higher educational levels, more than 20 percent with secondary education. About one third of the master craftspersons have also been trained in the formal training system.

Furthermore, apprenticeship in Tanzania provides a broad range of different skills. Table 4 reveals that they are trained in technical skills, but they also acquire management and entrepreneurial competences.

Table 4: Type of Skills Provided in Apprenticeship

<table>
<thead>
<tr>
<th>Type of Skill</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Literacy and Numeracy</td>
<td>5.8</td>
</tr>
<tr>
<td>Accounting and Cost Calculation</td>
<td>6.1</td>
</tr>
<tr>
<td>Negotiation with Suppliers</td>
<td>7.6</td>
</tr>
<tr>
<td>Marketing and Advertising</td>
<td>12.5</td>
</tr>
<tr>
<td>Developing New Products</td>
<td>31.8</td>
</tr>
<tr>
<td>Organisation of Workflow</td>
<td>33.5</td>
</tr>
<tr>
<td>Negotiation with Customers</td>
<td>35.9</td>
</tr>
<tr>
<td>Maintenance of Machines</td>
<td>38.7</td>
</tr>
<tr>
<td>Theoretical Background Information</td>
<td>68.4</td>
</tr>
<tr>
<td>Technical Skills</td>
<td>92.3</td>
</tr>
</tbody>
</table>

Source: Field Survey December 2013 - January 2014

Data also shows that employability of graduate apprentices is high. About 80 percent of graduates has set up an own business in the trained craft, 7 percent became skilled workers, and the remaining 13 percent went either to formal training, or found a job in other informal or formal enterprise. Therefore, the challenge for the Partner States is to develop the potential of informal apprenticeship, and to strengthen the institutional capabilities. This relates to the capacity to provide training in more advanced technologies and theoretical knowledge, to improve the quality of training and effectiveness, to establish links with the formal training system, and to formally recognize and certify training while strengthening incentives to participate in apprenticeship training.
2.5 Conclusion

In order to realize, the potential for catching up the Partner States shall:

- Increase the level of education and reduce the share of the population without schooling in order to trigger a productive transformation process.
- Transform the educational structure in the labour force in a balanced manner in order to enlarge the option space for sustained diversification into low and medium technology manufacturing.
- Promote diversification into new technologies and higher value added manufacturing for increased productivity, higher opportunities to accumulate competences in new techno-economic paradigms, productive employment and transformation dynamics.
- Design learning strategies by combining incentives and compulsion with support measures, and targeting learning-intensive sectors in addition to sectors with comparative advantages designed to trigger the evolution and development of a creative economy.
- Develop the potential of the informal apprenticeship system and strengthen the institutional capabilities to provide training for advanced technologies, and improved quality and effectiveness of training in order to promote productive transformation in the crafts sector and informal economy.
III. The Context of Higher Education Programmes in the EAC

3.1 Introduction

The last two decades have seen significant reforms in the higher education across the five Partner States of the East African Community, unprecedented, one could say. Though taking very different approaches, the five Partner States have all introduced far-reaching reforms to improve higher education provision by increasing emphasis on learners. Critical to achieving this are highly trained and innovative academic (teaching and learning support) staff. The authorities responsible for higher education in each Partner States: - Burundi (National Commission for Higher Education - NCHE), Kenya (Commission for University Education - CUE), Tanzania (Tanzania Commission for Universities – TCU), Rwanda (Higher Education Commission - HEC) and Uganda (National Council for Higher Education – NCHE) play a role in this: As the national bodies for enhancing learning and teaching in higher education, a central role of their focus is on the accreditation of initial and continuing professional development programmes delivered by higher education institutions. Accreditation provides external confirmation that this institutional provision is aligned with the national professional and academic standards framework for learning.

3.2 Nature, Scope and Extent of Higher Education Programs

As the economies of the East African (EAC) Partner States (Burundi, Kenya, Rwanda, Tanzania and Uganda) evolve, there is growing recognition of the importance of an educated workforce. Economists are projecting widespread increases in skill requirements, partly due to the nature of the industries in which we are likely to see the most growth. In addition, individual workers improve their earnings and their employability as they increase their educational attainment. The challenge is how to help more people, particularly adults, access higher education and earn degrees. Today EAC higher education system is facing a crisis regarding its perceived quality. The public is putting pressure on institutions to show the value of their degrees. Not only do employers complain about college graduates who lack skills, but students also question the meaning and value of a college education, no doubt because of its high cost and its potential for resulting in significant personal debt due to long periods of unemployment and accruing interest on student loans.

In the process of higher education policy harmonization, the role of the EAC and IUCEA and Partner States, and their spheres of influence on policy directions quite differ, they give a perspective to look at trends of policy harmonization at regional level. However, in the implementation of the Common Market Protocol (2010), one of the required transparent and acceptable instruments for the Partner States’ desire to facilitate free movement of persons and labour is “Mutual Recognition of Academic and Professional Qualifications”. Furthermore, the socio-economic development of the Community
relies largely on its skilled human resources, and that higher education students constitute the critical mass of human resources that will drive the EAC socio-economic development and integration agenda. Thus, the mobility of students, teachers, and researchers is of great importance in the realization of the basic tenets of the EAC Common Market Protocol, because of their position in the internationalization of higher education. The promotion of internationalization in general and of international mobility of students in particular, is an important element of higher education policies globally. In addition, mobility for the EAC students should be seen in terms of recognition of prior learning in facilitating ease of movement and opportunities for cross-border students and higher education providers. However, this should be supported by the creation of a common EAC Higher Education Area (EACHEA), in which the ensuing regional education system is transparent and reciprocally easy to understand, qualifications are appropriately recognized in all Partner States both for continuation of studies and the labour market, and learners and the teachers are able to move freely within the EACHEA.

Such a shared system of reference in the field of education and employment would also create room for breaking away from the rigid time schedules of study of university programmes by allowing students to (i) accumulate credits over longer or shorter periods, (ii) choose to learn under different delivery modes during different stages of the academic career, (iii) help in eliminating duplication of learning and effort, which not only demoralizes learners but also wastes resources and time, delay development and growth, and finally (iv) accommodate regular and technical education. The regional qualifications framework will be a basis for certification and accreditation of training achievements and categorization of programmes. It will also facilitate and, in the long run, eliminate the cumbersome process of gauging equivalencies of degrees and diplomas within the region.

It is becoming clear that as the process of integration proceeds, peoples’ values also respond by changing and taking on new spheres, which then redefine interests in terms of regional rather than purely national orientation. At the same time the former set of separate national group values are gradually superseded by a new and geographically larger set of beliefs and practices. The Partner States should therefore respond by developing and establishing infrastructure and enabling environment to assure and to promote the regional view of higher education as well as to solve disputes that may arise in pursuit of a regional higher education agenda. In addition the stakeholders should ensure that there are some links between the interests of Partner States and the process of education integration.

### 3.3 Higher Educationscape in East Africa

The last two decades have witnessed quantitative expansion and qualitative transformations in higher education in East Africa. These developments should be seen as confirmation that the region is living at a time when without good training and research at the higher level, no country can assure a degree of
progress compatible with the needs and expectations of a society in which economic development is carried out. This should be done with due consideration for the environment accompanied by the building of sustainable human development.

Higher education in East Africa is composed of a wide range of types of institutions { Universities, Institutions of National Repute (such as National Institutes of Technology), and Research Institutions, and colleges/institutions (Arts, Science and Commerce colleges (general college education); Engineering; Technical and Architectural colleges; Medical colleges; Teacher Training colleges; Polytechnics; and Others (Law, Management, etc.)) where studies and training at higher level; teaching; the conduct of research\(^{20}\) in a wide range of fields, as a result scholarly standing is heavily compromised and differs between particular types of institutions; and services to society are principal tasks and activities. According to the IUCEA Act 2009, higher education institutions (HEI) are defined to include University, University College and other degree awarding institutions. Each Partner State has defined HEI within its own context:

- In Burundi higher education is divided into two levels, university and higher institutes. Within this arrangement Burundi has 52 universities and other institutions, and 21 middle level higher education institutions.
- The Commission for University Education (CUE) Kenya has defined HEI include (i) teacher training colleges, (ii) trade, technical and vocational institutions, (iii) sectoral colleges within government ministries, (iv) institutions offering pre-university academic programmes, (v) private and public chartered universities, and (vi) non-governmental institutions offering commercial and other skill-based development courses beyond basic education, training and learning and approved by the CUE. The institutions offer certificates, ordinary diplomas, higher national diplomas, postgraduate diplomas, bachelor degrees, masters’ degrees and doctorate degrees. Within this definition Kenya has 1,843 higher education institutions of which 104 are universities and other institutions and 1,739 are middle skills development institutions (technical, vocational, trade schools/colleges).
- Rwanda defines HEI as tertiary education institutions awarding diploma, bachelor’s degrees, engineering degree, professional doctorate in medicine, master’s degree and doctorate degree. Within this definition Rwanda has 85 higher education institutions of which 16 are universities.
- Tanzania defines higher education to refer to the scope of knowledge and skills imparted within the tertiary level of education – academic full-professional training (universities and university colleges) and intermediary professional education and training institutions (diploma awarding). Tanzania’s education system has grown from one institution higher education (Dar es Salaam

---

\(^{20}\) Research and outreach at the EAC universities experience very limited funding making the realization of their objectives difficult.
University) 1961 to more than 984 tertiary training institutions of which more than 140 are universities and other institutions.

- The National Council for Higher Education Uganda defines HEI as teach establishments that admit students with advanced certificate of education. Within this definition Uganda has 210 HEIs of which 47 are universities and other institutions and 163 are middle level skills training institutions.

Table 5: Number of Higher Education Institutions Available by Category and Partner State 2013

<table>
<thead>
<tr>
<th>Institution</th>
<th>Number of Institutes (December 2013)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
</tr>
<tr>
<td>Universities and Other Institutions</td>
<td></td>
</tr>
<tr>
<td>Universities</td>
<td>178</td>
</tr>
<tr>
<td>Other Degree Awarding Institutions</td>
<td>33</td>
</tr>
<tr>
<td>Institutes of National Importance</td>
<td>79</td>
</tr>
<tr>
<td>Research Institutions</td>
<td>71</td>
</tr>
<tr>
<td>Total Universities and Other Institutions</td>
<td>361</td>
</tr>
</tbody>
</table>

Higher Education Institutions (Middle-Skills Institutions)

<table>
<thead>
<tr>
<th>Institution</th>
<th>Number of Institutes (December 2013)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
</tr>
<tr>
<td>Arts, Science, and Commerce Colleges</td>
<td>1,638</td>
</tr>
<tr>
<td>Engineering, Technical, and Architecture Colleges</td>
<td>69</td>
</tr>
<tr>
<td>Medical Colleges, Dental and Pharmacy, etc</td>
<td>123</td>
</tr>
<tr>
<td>Teacher Training Colleges</td>
<td>253</td>
</tr>
<tr>
<td>Polytechnics</td>
<td>1,193</td>
</tr>
<tr>
<td>Others (Law, Management, etc)</td>
<td>27</td>
</tr>
<tr>
<td>Total</td>
<td>2,836</td>
</tr>
<tr>
<td>TOTAL Higher Education Institutions</td>
<td>3,245</td>
</tr>
</tbody>
</table>

Key: na = data not available

Source: Field Survey and Analysis, December 2013 - January 2014

Table 6: Total Enrolment of Students by Category of Institution and Partner State 2013

<table>
<thead>
<tr>
<th>Institution</th>
<th>Number of Institutes (2013)</th>
<th>Student Enrolment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Burundi</td>
<td>Kenya</td>
</tr>
<tr>
<td>Universities and Other Institutions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Universities</td>
<td>178</td>
<td>37,723</td>
</tr>
<tr>
<td>Other Degree Awarding Institutions</td>
<td>33</td>
<td>357</td>
</tr>
<tr>
<td>Institutes of National Importance</td>
<td>79</td>
<td>493</td>
</tr>
<tr>
<td>Total Universities and Other Institutions</td>
<td>290</td>
<td>21,573</td>
</tr>
</tbody>
</table>

Higher Education Institutions (Middle-Skills Institutions)
### Arts, Science, and Commerce Colleges

<table>
<thead>
<tr>
<th></th>
<th>1,638</th>
<th>459</th>
<th>26,341</th>
<th>3,105</th>
<th>194,458</th>
<th>29,509</th>
<th>253,872</th>
</tr>
</thead>
</table>

### Engineering, Technical, and Architecture Colleges

<table>
<thead>
<tr>
<th></th>
<th>69</th>
<th>na</th>
<th>3,457</th>
<th>650</th>
<th>1,218</th>
<th>216</th>
<th>6,541</th>
</tr>
</thead>
</table>

### Medical Colleges, Dental and Pharmacy, etc

<table>
<thead>
<tr>
<th></th>
<th>123</th>
<th>na</th>
<th>2,390</th>
<th>1,048</th>
<th>17,328</th>
<th>6,090</th>
<th>26,856</th>
</tr>
</thead>
</table>

### Teacher Training Colleges

<table>
<thead>
<tr>
<th></th>
<th>253</th>
<th>105</th>
<th>20,852</th>
<th>1,605</th>
<th>5,329</th>
<th>7,760</th>
<th>35,651</th>
</tr>
</thead>
</table>

### Polytechnics

<table>
<thead>
<tr>
<th></th>
<th>1,193</th>
<th>386</th>
<th>1,026</th>
<th>N/A</th>
<th>18,062</th>
<th>N/A</th>
<th>19,474</th>
</tr>
</thead>
</table>

### Others (Law, Management, etc.)

<table>
<thead>
<tr>
<th></th>
<th>27</th>
<th>1,219</th>
<th>N/A</th>
<th>305</th>
<th>1,158</th>
<th>2,682</th>
</tr>
</thead>
</table>

### Total Higher Education Institutions

<table>
<thead>
<tr>
<th></th>
<th>3,303</th>
<th>950</th>
<th>55,285</th>
<th>6,408</th>
<th>236,700</th>
<th>44,733</th>
<th>344,076</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th></th>
<th>3,561</th>
<th>22,523</th>
<th>334,786</th>
<th>78,052</th>
<th>419,059</th>
<th>192,519</th>
<th>1,063,939</th>
</tr>
</thead>
</table>

Key: na = data not available

Source: Field Survey and Analysis, December 2013 - January 2014

The two tables (Tables 5 and 6) above display the higher education infrastructure in the region that is so diverse and rich, but lacking a coordinated approach in interventions. This diversity is likely to increase as the sector grows, delivering higher-level qualifications and vocational skills, with new providers operating domestically, internationally and online. Yet the balance of these activities, as well as how they are achieved and articulated, varies enormously. Planned and coordinated architecture would see these institutions produce sufficient, quality needed manpower for the business and employment sectors of the economies of East Africa. However, due to lack of a coordinated workforce development mechanism the region is not able to meet its current manpower needs and may not be prepared for the future.

Discussions with the stakeholders suggests that the future of higher education will be better felt as the sub-sector emphasizes the provision of globally competitive quality education, training, and research for sustainable development. In addition they want to see the graduates respond to the needs of the society, upgrading the skills of the existing workforce, and developing the community and business leaders of tomorrow, as well as the ability to start new businesses to employ their citizens and contribute to the region’s economic well-being within the following objectives:

- To promote socio-economic development in line with the region’s development agenda;
- To achieve manpower development and skills acquisition;
- To promote the discovery, storage and dissemination of knowledge;
- To encourage research, innovation and application of innovation to development and;
- To contribute to community service.
**Degree Awarding Powers and the Title ‘University’**

As per Table 5 above the EAC has 344 degree awarding institutions, usually categorised as Universities. Within the legal framework of the EAC Partner States all properly constituted universities and higher education colleges have the legal power to develop their own courses and award their own degrees, as well as determine the conditions on which they are awarded. To do this higher education institutions must be properly protected by law and the governance practices. Some HE colleges and specialist institutions without these powers offer programmes, with varying extents of devolved authority, leading to the degrees of an institution which does have them. This is the reason why in all the five Partner States higher education institutions are independent, self-governing bodies active in teaching, research and scholarship, and established by Charter or Legislation or Presidential Decree.

All universities in existence have the power to award degrees on the basis of completion of taught courses and the power to award research degrees. Institutions that award only taught degrees, which meet certain numerical criteria, may also be permitted to use the title ‘university’. Higher education institutions that award only taught degrees but which do not meet the numerical criteria may apply to use the title ‘university college’, although not all choose to do so. All of these institutions are subject to the same regulatory quality assurance and funding requirements as universities; and all institutions decide for themselves which students to admit and which staff to appoint. Degrees and other higher education qualifications are legally owned by the awarding institution, not by the state.

**Qualifications Awarded by Higher Education Institutions**

The types of qualifications awarded by higher education institutions at sub-degree and undergraduate (first cycle) and postgraduate level (second and third cycles) are described in each institution's prospectus. This description is approved by the respective higher education regulatory agency: NCHE (B), CUE, HEC (R), TCU and NCHE (U).

3.4 HEI Education and Training Programmes

In our assessment of the HEI education and training programmes we sought to understand two important issues:

   a) *Programmes Offered and Why*
The EAC region is providing more than 4,700 programmes in higher education at undergraduate and postgraduate levels through 361 higher education institutions, including non-accredited ones. 88.9% of these programmes were accredited, at the time of the study.

Of the programmes currently offered, about 54% are offered in universities, of which 38% are diploma, 35% are bachelors, 21% are masters and 6% are PhD programmes. Most programmes are day programmes (58% in Uganda and 62% in Kenya), followed by evening (on average 25%), weekend (12%) and long-distance (on average 2.8%) programmes. The lowest number of programmes running at the time of this study was one, the highest reported number 610 programmes, and most universities had three programmes. These programmes included certificate, diploma, bachelor, masters, postgraduate (certificate, diploma) and doctoral.

The design of these programmes can help inform the development of an EAC Higher Education Qualifications Framework with a focus on competences, whether by demonstrating the possibilities of high quality programs or by the recognition of learning acquired outside of traditional instruction. In this particular respect emphasis has to be put on the programme objectives and content, student selection and admission process, and programme delivery and assessment methodologies. However, both through review of materials and discussions with representatives of selected higher education institutions it emerged that over the last decade:

a. The HEI have not been keen on those programmes that are critical to economic and social development; it seems the driving force has been income generation to complement funds provided by government and sponsors;

b. The student admission process does not include assessment of resources, skills and traits that the student brings to the programme, and whether this potential will enable the student acquire the requisite competences on completion of the programme. However, we noted some institutions that have started administering entry exams as an added admission criteria and assessment for students to undertake the courses they have been admitted into. Although this should be seen as a step in the right direction, the intention by these institutions is not to use the results of the entry examinations for personal development of the student or to inform the (re)design and delivery of programmes;

c. Increased mobility of students within and across nations has been found to be vital in developing highly skilled labour force and cultural diversity and enrichment in order to strengthen a knowledge-based economy. The financial impact of this increasing knowledge-based economy on higher education is exhibited by the new and usually more expensive educational programmes offered and by a redistribution of faculty and students among these programmes, accelerating per unit cost;
d. Most HEI argue that they are providing outcomes-based and competence-driven programmes, but the available documents state differently. Outcomes-based and competence-driven programmes derive from high-impact learning practices, where students are actively engaged in the educational process, where their learning goes beyond the classroom to be applied in their personal and work lives. Students engaged in high-impact learning often see improvement in grade point averages, get their degrees more quickly, and are more engaged in their education. In a competence-driven programme students will actively pose and solve problems, work collaboratively with peers, experience real-world applications of knowledge, and reflect on their learning processes. None of the EAC higher education institutions, except Muhimbili University of Health and Allied Sciences (MUHAS), and Hubert Kairuki Memorial University seemed to tend towards high-impact delivery;

e. Evaluation of HE programmes has typically focused strongly on outputs (e.g. individuals trained to a certain standard) and very little on outcomes in terms of measurable development contributions from individuals or institutions, and even less on societal impacts. This focus and the confusion between outcomes and outputs has challenged the understanding and application of the concept of competence.

f. Whereas it is common knowledge that interdisciplinary and inter-sectoral working and linkages are very important for robust development of HE programmes, the HEI have not taken advantage of this potential. Therefore, HEI need to bring together not only the different disciplines, but also the different actors in the education, employment and business sectors, to create networks between academics and field-based workers, and to be aware of the meta-purpose of funders, as often there are political agendas behind HE schemes that affect outcomes.

b) The closeness of the relationships between what employers seek in graduates to entry level jobs and the emphasis placed on the skills obtained through higher education level programs.

Rather than looking at how effectively these programs serve their students in terms of academic requirements, course content, and intellectual enrichment, we focused on their role in facilitating the development of a broad range of skills. From this position we could view the programs from the skills and competences needed to perform entry level jobs and simultaneously enhance future job performance instead of focusing on the subject matter of knowledge. We therefore focused on two important components of the education system (i) the division of knowledge and competence, and (ii) the tightness of the link between the labour market needs and the education program outcomes.
First we examine the K-BET and the division of knowledge. We have divided knowledge gained through higher education into two categories: substantive and enabling. For purposes of this study we see substantive knowledge, which embraces concepts, theories, analytical tools, and what we define as the subject matter of the field or area of discipline, and conveyed through texts and course lectures, to dominate the higher education human resource development process. Mastering substantive knowledge requires intensive individual study. Within this context we learnt that most of the higher education institutions in the region are focusing on delivery of substantive knowledge.

Enabling knowledge, on the other hand represents the skills individuals possess that allow them to apply their substantive knowledge and at the same time gain expertise in applying that knowledge. The importance of enabling knowledge is seen in the skills and proficiencies that should be developed by academic programmes for successful labour market performance. Nelson Mandela African Institute of Science and Technology (NMAIST) in Arusha Tanzania is the model university in this area, with its focus on Masters, Doctoral and Post-Doctoral programs, with emphasis on skills accumulation, science, technology and innovation. Next in value to NMAIST, but implementing conventional delivery models are the Jomo Kenyatta University of Agriculture and Technology, Strathmore University, and Tumaini University Makumira, with elaborate undergraduate programmes designed around the human potential development matrix and delivered with comprehensive student participation.

The price tag that comes with academic programmes established to train human resources for the labour market is that they view potential employers of their graduates as their program’s customers. Regardless of how these programs are assessed and evaluated within the confines of institutions of higher education, no program can deviate too far from satisfying the needs of the labour market. Today, an almost inevitable tension exists between what employers want in the way of skills development and what the higher education institutions in the EAC region provide, through their programmes, with the learners caught in the middle. The majority, if not all, higher education

---

21 It is assumed that programme providers would carry out an assessment of student needs vis-a-vis market needs and develop appropriate programmes to tap the student competences for the labour market. However, the current process requires students to fit in the study programmes and by extension meet the expectations of the labour market.

22 Universities lie at the heart of scientific advancements. But the issues of science and its relationship to society goes much deeper than simply the generation of new ideas. Therefore, governments must recognize that if university research is to be used for greater social benefit then they need to take the lead.
providers still do not view employers and graduates as customers. They are yet to appreciate this trend of thought in their design and delivery of training programmes\textsuperscript{23}.

Second, \textbf{Skills-based} method (S-BET) focuses on mastering specific skills or standards rather than completing course work over a specific period of time. It is intended to be an institutional process that moves education from focusing on what academics believe graduates need to know to what students need to know and be able to do in varying and complex situations. It is focused on prospects that are linked to workforce needs, as defined by employers and the profession. Its outcomes are increasingly complex in nature, rather than deriving from the addition of multiple low-level objectives. S-BET often necessitates more complex assessment, involving portfolios, experiential learning assessment in field experience, demonstration in varying contexts, role play, and use of standardized customers. We could see from our discussions with various stakeholders that there is a belief that skills-based training is actually or synonymous with competence-based training (C-BET). One could not be far from the truth, just as knowledge-based education is also competence-based education\textsuperscript{24}. However, the common denominator or secret in both cases is in the design and delivery process. We noted a lot of similarities in the aims, objectives and expected career paths of those completing programs in K-BET and S-BET.

\section*{c) The Link between the Labour Market Needs and the Education Program Outcomes.}

The process of moving to a competence-based system requires developing course competences, mapping the competences to the discipline, institution and designing units using a competence framework. Assessment literacy is critical as a well-designed unit will meet the criteria for learning at deep levels of understanding. It is in this respect that the Tanzania Ministry of Education is calling for pedagogy training for all lecturers\textsuperscript{25}, and Muhimbili University of Health and Allied Sciences (MUHAS) has already instituted medical professionals’ education training programs to ensure that the lecturers are able to interact properly with learners. Both the Ministry and MUHAS understand that competence-based education includes two learning modes - competence-based and personalized learning, which are intertwined.

In Kenya up to two thirds of the higher education academic staff have no initial pedagogical training. In line with this the University of Nairobi (UON), Kenyatta University (KU) and Jomo Kenyatta University of Agriculture and Technology (JKUAT) have, in recognition of this problem developed in-house

\textsuperscript{23} This has, as a result affected the design and delivery of programmes, which has witnessed little if any student/learner and employer participation in development and delivery of programmes, assessment, examination and determination of awards.

\textsuperscript{24} We could understand that this is a new paradigm that some find difficult to understand and accept. At the same time everyone wants to be in the lead, and therefore, if C-BET is the new baby on the block, we all want to be there!

\textsuperscript{25} This echoes the concerns of participants at the 2013 ACADEMIA-PRIVATE Sector Partnerships Forum and Exhibition held in Nairobi October 23-26, 2013.
pedagogical programmes to enhance the efficiency and effectiveness of their lecturers in programme delivery. KU has gone further and developed a Regional Centre for Capacity Development and a Centre for Teaching Excellence. These two centres are open to anyone who wants to enhance their pedagogical skills.

Competence-based learning identifies specific and measurable learning objectives that students must master before moving ahead. This must be done at entry into a programme. However, none of the existing institutions attempts to understand the student/learner before they enroll in a programme or commit to a course. Assessment of the student/learner before the program starts and as part of entry into a program is meaningful, promotes active participation, responsibility and leads to a positive learning experience, building self-perception and confidence. Most employers confirm that graduates may have ideas, but they do not have the confidence as they think the idea isn’t “good enough” or “perfect”. Many employees therefore do not feel comfortable bringing up an idea as they fear they will be judged for it not being good enough. When solutions to new challenges are requested, the result is often ideas which are extremely similar to previous ones and not very original. Ultimately this leads to a lot of companies continuing along the status quo, unaware that there may be better ways to improve their offerings.

Competence means not only learning content, but also the ability to apply that content to solve problems or communicate about it. Personalized learning creates a data-driven framework to set individual student goals, assess progress and ensure that students receive the academic and developmental support they need. As a result large skill sets are broken down into competences, which may have sequential levels of mastery. As learning progresses competences reinforce one another from basic to advanced; the impact of increasing competences is synergistic, and the whole is greater than the sum of the parts. This is what creates thinkers, innovators, leaders and champions.

**d) The Use of Competences and Progress toward a Degree**

All the five EAC-PS, through their authorities for higher education - NCHE (B), CUE, TCU, HEC and NCHE (U), and authorities responsible for admission of students into higher education institutions, have provided generic guidelines on entry routes into higher education, type of higher education delivery...
modes and minimum entry requirements. Based on these guidelines each higher education institution has determined its own admission regulations, minimum entry levels and student growth paths.

Competences within different contexts may require different bundles of skills, knowledge and attitudes. The challenge is to determine which competences can be bundled together to provide the optimal grouping for performing tasks. Another challenge is related to designing learning experiences that support students as they practice using and applying these competences in different contexts. Continual refinement of defined competences is necessary so that enhanced performance in a variety of contexts can be assessed. In essence, C-BET is a process, not a product. In addition curriculum can be developed in a modularised fashion by competence, allowing the institution/organisation to quickly assemble a program of learning that is specifically tailored to address identified skills and qualifications gaps.

We noted competence frameworks within regular course-based programmes in several higher education institutions visited in the region. However we could detect some differences.

(i) One group of institutions uses competence frameworks in the context of a course-based system, where students take the same kinds of courses that have always been offered by colleges and universities: instructor-led and credit-hour based. In this category many institutions that are designed around courses and credit hours have embraced an objectives-approach for their programmes. Each institution or programme has identified what the intended learning objectives are for students graduating with a degree from the institution. A review of catalogues and prospectus reveal statements such as, "a sound and

---

MUHAS seven Principles of Transformation from Conventional to Competence-Based
1. Curricula are crafted to ensure that graduates are equipped to provide the best quality and most appropriate health care to the people of Tanzania.
2. Curricula review and revision are coordinated across schools, and every opportunity is sought for synergies and efficiencies in teaching and assessment of students across professions.
3. Curricula review and revision involve an inclusive process engaging as many stakeholders as possible, inside and outside MUHAS.
4. Curricula are competence-based with measurable milestones for achievement of learning by students.
5. Curricula are efficient in reducing content overlaps and redundancies, making best use of faculty and student time.
6. Traditional methods of teaching and assessment are complemented by innovative and appropriate methods as resources allow.
7. MUHAS provides faculty with developmental and technical support throughout the curricular review, revision process, and implementation.

Journal of Public Health Policy, Volume 33, Supplement 1 (2012), s69

---

26 Having defined the competences, skills and behaviours required it is possible to target the design of curricula and development programs to address these requirements.
well articulated technical education ....", "to provide basic knowledge and practical skills necessary for .....". They in fact take this approach to the course level, articulating the specific learning aims and objectives that students are expected to realize at the end of a given course, rather than the learning outcomes that students are expected to have at the end the course. Both the University of Dar es Salaam (UDS) and the Dar es Salaam Institute of Technology (DIT) are good examples of this kind of approach.

(ii) Another group of institutions uses competence frameworks as tools to new and innovative ways, and to better prepare students for success in higher education institutions and their careers. Some individual schools, colleges and universities are moving ahead with this innovative approach where achievement is the constant and time is the variable. These institutions recognise that not all students learn at the same rate, or in the same way, so flexible models that adjust to the needs of students can help more students succeed. A model institution in this category is the MUHAS, which adopted C-BET framework in order to offer a very different curriculum from conventional course-based models, now stands out as a professional medical university that allows students to graduate by demonstrating competences, based on seven (7) principles.

(iii) Another set of universities has built strong linkages with the private sector and employers allowing students to acquire enhanced internship programmes designed to inculcate practical training and competence based training. For instance Sokoine University of Agriculture (SUA) has a structured internship and placement programme that allows its students and graduates to access public and private sector attachment and placement opportunities. Other universities in this category include JKUAT, Technical University of Kenya (TUK), Strathmore University (SU), Makerere University (MU), KU, University of Rwanda (UR), which have developed structured internship relationships with the employment sector in some specific areas of study. In this respect, internship is seen as a continuation of the course program, and similar assessment and follow-up criteria is followed, as though the student was in class.

Some of the examples described in this paper show that it is possible for students to earn degrees by demonstrating competences alone. At the DIT, although the design of programs is objectives-led, the delivery model allows the students to progress toward a degree by demonstrating the competences required for the degree. They can do this by taking courses that are related to those competences or by preparing portfolios that demonstrate mastery of those competences through prior learning (with minimal required coursework). In contrast, in the competence-based health and medical programs at MUHAS, traditional forms standardized exams, challenge exams, evaluation of external training, and portfolio assessments are not options, and yet the focus on competences, rather than on seat time, allows the student to progress toward a degree more efficiently. While neither the DIT nor MUHAS
model offers the same kind of transferability of learning between institutions, their examples show that competence-based education is not just about moving beyond a credit-based system. It is also about advancing multiple visions for what higher education could be in the future of Tanzania, a philosophy and practice also embraced by the Hubert Kairuki Memorial University (HKMU), Egerton University, East African University Baraton (EAUB) and Moi University.

At business and employer levels, many organizations have not established comprehensive competence-based employee development programs in high need areas. As a result it is difficult to identify programs which are staged development initiatives that include: formal in-class learning events; planned work assignments aimed at developing certain skills and competences; self-study components; and, formal assessment to evaluate progress in development as well as to accredit or certify that the employee has gained required competences and knowledge. We also noted that staff training and development programs carried out at corporate level in most cases were neither accredited nor delivered by accredited and certified trainers. However, there was expressed need by organisations that employers should move to this model of employee development to address current or looming shortages of staff and to ensure that there is a continuing supply of qualified staff to meet future organizational needs. This approach would also demonstrate to employees that the organization is committed to their development and advancement within the organization.

\textit{e) The Missing Middle}

Two key questions must be answered at this point, if indeed the EAC higher education system has to build the required skills for the labour market.

- What skills do students really need?
- How should skills development be delivered?

And this is where things become particularly chaotic, with each stakeholder in the system pushing ahead with little regard to the others on the right course of action. The stakeholders have different views on whether graduates are ready to succeed in entry-level positions (Table 7), with only 27\% of employers holding that they are ready, 80\% of HE providers and 32\% of the youth. These differing perspectives hold across countries, with Tanzania and Uganda demonstrating the widest gaps between the opinions of providers and employers, 37\% and 45\% respectively.

Table 7: Perception of Graduate Readiness for the Job Market by Partner State

<table>
<thead>
<tr>
<th>Country</th>
<th>HE Provider Perspective$^1$</th>
<th>Employer Perspective$^2$</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burundi</td>
<td>72</td>
<td>45</td>
<td>-27</td>
</tr>
</tbody>
</table>

East African Community Qualifications Framework for Higher Education Situation Report
Overall, graduates from my institution are adequately prepared for entry-level positions in their chosen field of study.

Overall, employees we hired in the past year have been adequately prepared by their pre-hire education and/or training.

Opinions on the level of preparedness differ depending not only on who is answering the question, but also on what sector they represent. Just over half of employers in education, finance, and health care sectors where recruits are often professionals, rate their new employees as adequately prepared. Employers in trades, construction, and manufacturing were less optimistic. Table 8 summarises these findings.

Table 8: Employee Preparedness by Sector

<table>
<thead>
<tr>
<th>Sector</th>
<th>% of employer respondents who state that new-hire employees were prepared; minimum 100 respondents per sector (20 per Partner State)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>54.3</td>
</tr>
<tr>
<td>Financial Services</td>
<td>50.9</td>
</tr>
<tr>
<td>Health and Social work</td>
<td>50.8</td>
</tr>
<tr>
<td>Manufacturing and Processing</td>
<td>41.6</td>
</tr>
<tr>
<td>Construction</td>
<td>40.7</td>
</tr>
<tr>
<td>Transport, Storage and Communications</td>
<td>39.6</td>
</tr>
<tr>
<td>Real Estate, Renting and Business Activities</td>
<td>36.9</td>
</tr>
<tr>
<td>Wholesale and Retail Trade</td>
<td>36.1</td>
</tr>
<tr>
<td>Agriculture, range management, fisheries and forestry</td>
<td>34.6</td>
</tr>
<tr>
<td>Hotels and restaurants</td>
<td>33.9</td>
</tr>
<tr>
<td>Other</td>
<td>34.7</td>
</tr>
</tbody>
</table>

Overall, employees we hired in the past year have been adequately prepared by their pre-hire education and/or training.

To get a better understanding of how employers approach this issue, it is important to examine their attitudes and behaviors. We found that the employers who report the best outcomes with regard to the preparedness of new workers are those that are most attentive and take note at what is happening to student enrolment (access), skills development, and employment. One important conclusion that can be drawn is that the employers who engage the most, and the earliest, have the best outcomes. A
closer look at how employers regard the specific skills possessed by graduates is also informative. We asked employers and education providers for their assessments of the importance of 13 individual skills and their evaluation of general competency (Table 9) of the young people they hire in regard to the skills. Their responses highlight three important points:

a) Compared with education providers, employers are much clearer in their ranking of the relative importance of various skills. Employers cite work ethic, communication and teamwork as the most important skills in almost every Partner State; education providers give similar weights across the board.

b) Employers note a mismatch between what they need and what they are seeing; they rank the competence of new hires in each of the various skills lower than the importance they give it.

c) In some skills, there is a wide gap between the perspectives of employers and education providers on the competence of new hires. The difference is particularly stark in theoretical and hands-on training, problem solving, and computer literacy.

Table 9: Employer and HE Provider Perspective on Youth Skills

<table>
<thead>
<tr>
<th>Skills Area</th>
<th>% of respondents responding 8 or higher out of 10</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Employer Rating</td>
</tr>
<tr>
<td></td>
<td>Competence</td>
</tr>
<tr>
<td>Work Ethic</td>
<td>63</td>
</tr>
<tr>
<td>Oral Communication</td>
<td>63</td>
</tr>
<tr>
<td>Teamwork</td>
<td>62</td>
</tr>
<tr>
<td>Hands on Training in discipline</td>
<td>55</td>
</tr>
<tr>
<td>Problem Solving</td>
<td>52</td>
</tr>
<tr>
<td>Written Communication</td>
<td>46</td>
</tr>
<tr>
<td>Creativity</td>
<td>49</td>
</tr>
<tr>
<td>Theoretical training in discipline</td>
<td>50</td>
</tr>
<tr>
<td>Basic Mathematics</td>
<td>53</td>
</tr>
<tr>
<td>Leadership</td>
<td>50</td>
</tr>
<tr>
<td>English Proficiency(^1)</td>
<td>49</td>
</tr>
<tr>
<td>Computer Literacy</td>
<td>43</td>
</tr>
<tr>
<td>Local Languages(^2)</td>
<td>61</td>
</tr>
</tbody>
</table>

\(^1\)English proficiency was asked in all countries even when language of business was not English.

\(^2\)Local language was asked Rwanda, Burundi and Uganda

Source: Field Survey and Analysis, December 2013 - January 2014
To assemble a comprehensive list of skills needed by higher education graduates and graduates from professional occupations we engaged our key informants and Matrix 2 is a summary of the findings.

Matrix 2: Comprehensive List of Skills and Competences

<table>
<thead>
<tr>
<th>Behavioural Skills</th>
<th>Technical</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Active Listening Skills</td>
<td>• Communication Skills - Presentation</td>
</tr>
<tr>
<td>• Adaptability Skills</td>
<td>• Research Skills</td>
</tr>
<tr>
<td>• Decision Making Skills</td>
<td>• Resourcefulness</td>
</tr>
<tr>
<td>• Facilitation Skills</td>
<td></td>
</tr>
<tr>
<td>• Self-motivation,</td>
<td>• Computer Skills</td>
</tr>
<tr>
<td>• Learning agility,</td>
<td>• Transport and logistics management</td>
</tr>
<tr>
<td>• Risk Taking</td>
<td>• Procurement</td>
</tr>
<tr>
<td>• Sensitivity To Diversity</td>
<td>• Organisation Skills</td>
</tr>
<tr>
<td>• Team Skills</td>
<td>• Organizational Dynamics</td>
</tr>
<tr>
<td>• Self-awareness</td>
<td>• Leadership Skills</td>
</tr>
<tr>
<td></td>
<td>• Negotiation Skills</td>
</tr>
<tr>
<td></td>
<td>• Planning Skills</td>
</tr>
<tr>
<td>• Cognitive</td>
<td>• Project Management</td>
</tr>
<tr>
<td>• Analytical Skills</td>
<td>• Agriculture value chain</td>
</tr>
<tr>
<td>• Creativity</td>
<td>• Hospitality</td>
</tr>
<tr>
<td>• Communication Skills - Oral</td>
<td>• Pedagogy</td>
</tr>
<tr>
<td>• Communication Skills - Written</td>
<td></td>
</tr>
</tbody>
</table>

The increased skill levels for future jobs directly correlates to increased educational requirements for those jobs. The anticipated growth rates for occupations for region, therefore are skewed towards jobs that are either highly skilled – needing a bachelor’s degree or above – or middle skilled – requiring more than a high school certificate but less than a three-year degree. By 2020 throughout the region, nearly two times as many jobs requiring post-secondary education will exist as compared to jobs for those with a high school education or less. Similarly, by 2025, about 81 percent of the fastest growing occupations that have above-average wages will be jobs that require a post-secondary education of a diploma or higher.

Further interrogation of the survey data reveals further differences. For example:

a) compared with those in other countries, education providers in Rwanda and Kenya are much more likely than employers to rate youth as competent (Table 10)

b) Even in countries where the differences in perception appear narrow, there is a fair amount of misalignment on specific competencies. In Burundi and Tanzania, for instance, providers are
more likely than employers to rate youth competent in theoretical and hands-on training within a discipline.

c) On the other hand, employers rate youth leadership competencies higher than providers do.

Table 10: Perception Gaps of Youth Skills Competence - Employer and Provider Misalignment on Youth Competence

<table>
<thead>
<tr>
<th>Partner State</th>
<th>Difference between employer and provider competence rating; country average %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burundi</td>
<td>28</td>
</tr>
<tr>
<td>Kenya</td>
<td>15</td>
</tr>
<tr>
<td>Rwanda</td>
<td>24</td>
</tr>
<tr>
<td>Tanzania</td>
<td>33</td>
</tr>
<tr>
<td>Uganda</td>
<td>21</td>
</tr>
</tbody>
</table>

Source: Field Survey and Analysis, December 2013 - January 2014

Another gap has to do with how to reach competency; in this case, the difference is between youth and their instructors. In our survey, 58 percent of students said that practical, hands-on learning is an effective approach to training. However, only 24 percent of academic-program graduates and 37 percent of vocational graduates said that they spend most of their time in this manner (Table 11).

Table 11: How Young People Prefer to Learn

<table>
<thead>
<tr>
<th>Method of Delivery</th>
<th>Most effective instructional techniques¹ % of respondents saying technique is effective</th>
<th>Use of hands-on learning in academic and vocational institutions² % of respondents indicating a majority of hours spent in learning methodology</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-the-Job Training</td>
<td>62</td>
<td>Theoretical 76</td>
</tr>
<tr>
<td>Hands-on learning</td>
<td>58</td>
<td>Hands-on 24</td>
</tr>
<tr>
<td>Multimedia</td>
<td>54</td>
<td></td>
</tr>
<tr>
<td>Seminars</td>
<td>46</td>
<td></td>
</tr>
<tr>
<td>Traditional lecture</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>Online/distance learning</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>HE Graduate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technical and Vocational</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Field Survey and Analysis, December 2013 - January 2014
We also found it captivating that young people consider online or distance learning to be as effective as traditional formats. Given that economics is a major factor in limiting access to postsecondary education, scaling up distance learning could be a cost-effective way to provide more educational opportunities.

3.5 From Education to Employment

Every graduate wants to transit successfully from education to employment. As it is today in the EAC Partner States this is a nightmare. In the middle of this Century, East Africa will have a population of about 300 million people, more than twice the current population figures. This population will include a workforce of more 109.3 million people. A third of these future workers have already been born. To accommodate that workforce without a rise in the rate of unemployment, it will be necessary in the next 35 years to quadruple the number of jobs in the region, and grow and expand the private sector. The population trends reveal increased movement away from farms and rural areas to urban, so that 75% of the population will be urban residents. Unless new workers are attracted to rural areas and farms in large numbers, urban areas will be bursting to their seams with unemployment. In addition, unless those working on farms and rural areas raise productivity, the rural population will face serious uneconomic subdivision of land, migration into marginal areas, falling average income, and exposure to food insecurity.

Moreover, at the current trends in higher education, there will not be enough skilled and qualified persons to meet the needs of an expanding and growing business and employment sector. The structure of education in the region should be harmonised, and should be accompanied by a harmonised curriculum at all levels of higher education so as to allow for smooth student mobility. This will provide a smooth net effect on free movement of labour in the region and will minimize biases and egocentric tendencies that may arise from differences in education structures.

EAC leaders are united in acknowledging youth unemployment as one of EAC’s greatest challenges. In fact at stake is the future of an entire generation. Despite more people looking for work, employers in EAC Partner States cannot find the skills they need. Across the EAC, three quarters of young people under 25 in the labour market are unemployed. However this is not to say that youth unemployment is a new issue for the EAC Partner States. Clearly, the lack of availability of jobs in the EAC is part of the problem, but it is far from the whole story. Older people are working for longer and more women with children are joining or remaining in the workforce. More participation across all age groups means more competition for open positions. This particularly affects younger people, who are disadvantaged by lack of proven experience. Meanwhile, labour-market regulations that discourage hiring and firing, which are common in across the region, make it even harder for youth to get started.
At the same time, employers everywhere report skills shortages. Skill gaps cause the most problems in Partner States with the highest youth unemployment. One-third of employers said that lack of the right skills is causing major business problems, in the form of cost, quality or time. 47 percent of employers reported that a lack of the right skills\(^{27}\) was a major reason they did not fill vacancies. For most employers, not being able to find the right candidates is a significant issue, to the point that 70 percent of employers state they would pay significantly more to get qualified employees.

Finding work, the support systems that could help young people secure satisfying, stable jobs are inconsistently available. Less than one fifth of the youth considered the career services offered useful, compared with two thirds in the United Kingdom (UK). Less than one tenth of EAC higher education students completed a work placement, compared with 87 percent of those in France and two thirds in the UK.

Ideally, there is a seamless merging of interests at this point. Students want to find a job suited for their skills—and fast. Employers want to find the right talent. Education providers value high placement rates as an indication of the relevance and quality of their programs. Of the youth who have a job, approximately one in four took more than one year to find their initial employment. Among working youth only 28% landed a job relevant to their field of study, with 48% finding interim work as first job, jobs that are unrelated to their field of study and that the youth plan to leave quickly. Examining the findings about interim employment is revealing, because individuals working in such jobs—in addition to those who are unemployed—are the most dissatisfied. They are more likely to be younger men; they tell us that they also have lower incomes. Almost 40 percent of those who do not progress beyond the secondary level find themselves in interim jobs.

Education providers, typically, are not held accountable for employment outcomes, so it is no wonder that they do not have a clear view of the challenges of finding a job. Most of the higher education providers surveyed could not estimate the percentage of their graduates who found jobs, and many of those who did offer a guess got it wrong. Three-quarters of providers, for instance, believed that most of their graduates (74%) found work in three months or less, a far more optimistic outcome than that (54%) reported by young people. Persons graduating at any one time were employed by the end of three years of graduation (Table 12).

However, the Partner States have not been able to absorb all graduating students at any one time in three years. The governments are concerned more about employment in the formal sector, data on employment in the informal sector is not readily available, except for Kenya, which indicates that

\(^{27}\) Some of the skills mentioned over and over again include leadership, communication, decision making, critical thinking, and problem solving and project management. See Takes 8-9 and Matrix 2
during the first year of graduation the informal sector absorbs 43% of the graduates within the first year.\(^{28}\)

Table 12: Perception of Population of Graduates Finding Jobs After Graduation

<table>
<thead>
<tr>
<th>Group of Respondents</th>
<th>% of Graduates By Period</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>≤ 3 months</td>
</tr>
<tr>
<td>Young People</td>
<td>53.7</td>
</tr>
<tr>
<td>Education Providers</td>
<td>73.5</td>
</tr>
<tr>
<td>Employers</td>
<td>58.3</td>
</tr>
<tr>
<td>Policy Makers (Government)*</td>
<td>13.6</td>
</tr>
</tbody>
</table>

* Formal Employment only

Source: Field Survey Results, December 2013-January 2014

There are proven ways to improve transition from education to employment. We note that the EAC Partner States, employers, education providers and families are operating in difficult circumstances, but there are ways to ease the burden on all of these groups. It is possible to:

(a) Innovate with design, course delivery, and financing to make education more affordable and accessible: To reduce the cost of courses, one solution is to break up degree programmes into individual modules that focus on a particular set of skills, while still counting towards a degree workplacements.

(b) Involve the EAC: To help the most successful interventions reach the greatest number of young people, the EAC has a critical role to play in three areas:

- **Information**: The EAC should develop and share a more comprehensive labour-market platform incorporating the most relevant data to capture employment trends in each sector and region. This would help institutional decision makers, employers, and jobseekers make better decisions, for instance by helping users understand the implications of the data, whether on the courses they should offer as an education provider or the skills gaps they should try to fill as a group of employers within an industry.

- **Mobility**: The EAC should seek to improve educational and labour mobility by working to make vocational qualifications transferable across borders for higher education institutions

- **Sharing relevant practices on matching labour market demand and supply**: The EAC is in the best position to take a lead on helping national public employment services to compare their successful interventions, and to disseminate and promote those that are relevant to similar context countries

3.6 **EAC as a Common Education Area**

The EAC region includes five Partner States on a land mass of 1.82 million square kilometres with diverse communities, cultures, languages, economies, beliefs and practices. Introducing a common education area means opening up a common single space in which education will be managed, flow freely and be enjoyed by all. But, is it possible to actually manage education like other resources? To address EAC’s rising challenges, the EAC must enter a new phase of education development tied to the provision of basic needs and development of a creative economy. The foundation for this new phase shall be a harmonised higher education system in a defined EAC Common Higher Education Area (EACHEA). In East Africa, as elsewhere, regional integration efforts will very much depend on education systems that prepare the workforce for integrated labour market. The EACHEA will be characterized by structured and coordinated growth and diversification of the higher education sector; rapid economic growth generated by job creation sufficient to absorb the growing labour force, expansion of the private sector and cross-border education; increased productivity in agriculture and natural resources; a dynamic and growth oriented micro, small and medium enterprise sector that creates jobs at low cost, caters to the needs of people at all levels and is integrated in the higher education system for research, teaching and innovation; increased competitiveness of higher education; and restructured and strengthened academia-private sector partnership capable of promoting harnessing and directing potential towards productivity and innovation, and benefiting from post-doctoral engagements. Higher education development and growth structured on this basis will provide widespread benefits for all East Africans improving their access, enhancing productivity and enjoying high returns from skilled workforce. Indeed there is little conflict between quality education and national development, because national development can only be sustained by rising competitiveness, productivity and incomes of an informed and educated population.

### 3.6.1 The Concept

The IUCEA has targeted 2015 as the year when the EAC attains a common education space.

The concept of “common space” or "common education area" introduces the notion of “space for emerging relationships” in education and this can be physical (office, dispersed education and training space), virtual (e-mail, teleconference), mental (shared experience, ideas, ideals), or any combination of all these. The difference between a common education area (CEA) and ordinary human interactions (within the definition of the EAC Common Market Protocol) is the goal of knowledge creation. We consider ‘common education area’ to be a shared space that serves as a foundation for knowledge creation” required for the transformation and development of the economies of the EAC Partner States.
Knowledge, talent and creativity do not just exist in one’s perception or intuition or mind, rather, they are created in situated action, through interaction, exchange and commitment. A common education area offers a context. We could define this as a shared context in motion, in which knowledge is shared, created and utilized, skills developed and competences acquired. Specifically a common education area introduces four dynamics in the education process:

- Increased socialization as a tool for transfer of skills and knowledge;
- Externalization as a tool for expanded space for conversion of tacit knowledge into explicit knowledge and skills;
- Combination as a tool for the integration of explicit knowledge by supporting the continuous interaction between tacit and explicit knowledge; and finally
- Internationalisation as a tool for embodying new knowledge.

Therefore, an EAC Common Education Area is a place where information is given meaning through interpretation to become knowledge, and new knowledge is created out of existing knowledge through the change of the meanings and contexts.

Within the confines of the EAC integration process, it was our understanding from the interviews that the EAC Common Education Area must first emerge in individuals (changing mindsets to embrace cohesion and open systems); groups, teams, and circles (consensus); meetings, seminars, virtual space, such as e-mail groups, and at the front-line contact with the customer (growing the concept and building networks), and to the public (building political will and acquiring commitment to action). A common education area, in this context, is an existential place where the East African residents share their contexts and create new meanings through interactions. Therefore the EACCEA becomes a way of organizing that is based on the meaning it creates, rather than a geographical area or a system of manipulation such as a bureaucracy or network.

Thus, the relationships between the EAC and CEA is always to look back at the source - the reasons for, the mandate of, and the goal, and then let the EAC approach the knowledge creation by aligning its knowledge vision, context, creative routines, incentive systems and leadership, all designed to shape the education process to meet the needs, ambitions and wants of the region.

3.6.2 The Implications for an EAC Common Higher Education Area

Based on the concept above, establishing an organizational environment for Common Higher Education Area (CHEA) will require a holistic approach, one that links the knowledge activities and the
interactions to be supported to the enabling conditions. There are a number of tensions inherent in the framework which could present practical challenges. For example, the need for trust and personal relationships implied in the social/behavioral condition may be at odds with the need for formal coordination and discipline implied in the strategy/structure condition. Again, the call for diversity and openness in the cognitive/epistemic condition may run against the call for efficiency and standardization required in information systems/management. Recognizing these tensions and finding ways to navigate these potential areas of conflict improve the probability of success in CHEA.

Our reading of the responses from employers, leaders in government and managers of the HEI suggests that establishing the CHEA and managing knowledge that comes with it is above all, both a cultural and behavioral change, and political process.

- To succeed in establishing a CHEA is to succeed in instilling a set of values and a pattern of behaviors that enables people in the region to use what they know to learn and innovate for the good of the region; and
- This requires political will and commitment to action, expressed in form of a policy and regulatory frameworks, availability and access to resources, and implementation.

Establishing CHEA is fundamentally about creating an environment that is conducive to and encourages an expanded space for knowledge creation, sharing and use, and more importantly, enhances the employability of EAC higher education graduates without compromising on academic quality. Governments and HEI pursuing knowledge creation and innovation should be guided by a set of enabling conditions. These conditions and the frameworks they are part of should help the states, the business and employment sector, and the higher education institutions to analyze, discuss, and introduce specific combinations of enabling factors that are tailored according to the type of knowledge process and level of interaction needed to address a particular knowledge problem or vision for transformation and development of the region.

From a research perspective, given its importance in regional knowledge creation, and given its theoretical richness and adaptability, the construct of CHEA as enabling context for regional integration and as a pillar in human capital development still needs to be guided, by further investigation into the four indicated enabling factors (drivers) discussed below.

**1. Fostering Social Relationships and Interactions**

The East African people are a highly social community whose activities are dictated by social norms and cultural beliefs and practices. Both the EAC and the people of the region recognize the need for
fostering interpersonal relationships and interactions based on norms and values such as care, trust, and a willingness to experiment, all of which help form a social environment conducive to knowledge creation, sharing and application. Within this context, therefore, the following would be important elements of this group of conditions guiding the evolution and growth of CHEA: autonomy; dialogue conscientious enquiry; access and participation; tolerance; and care, mutual trust and collaboration.

Across the region's higher education system, we have found values guiding relationships in institutions to be of particular importance, and the value of care in institutions relationships is one key enabling condition. It is important to note that what will make or break the transformation of the EAC higher education system into a sustainable “knowledge-creating system” will not be the overall structural approaches employed by each Partner State and Institution, but their sensitivity to the way people relate. The thread in this is the education system, the knowledge transfer process and how sensitive it is to the social/behavioural structure and able to promote social relations and interactions. The foundation of a sustainable common education area is an efficient system of social relations and interactions. To accomplish this it’s necessary to stress the importance of the creation of the enabling context, student interaction for building relationships and contacts that enable the sharing of different perspectives, and tolerance to honest mistakes as an antecedent to innovation and knowledge sharing.

2. Cognitive Diversity and Common Knowledge
As a region in the race to "catch-up" with the developed economies, the EAC is in need of knowledge that is diverse and representing different backgrounds and cognitive styles; and the need for common knowledge based on shared beliefs and mental models. Both requirements need to reinforce each other: the existence of shared beliefs and ideas should be based on embracing the ideas and experiences of people with different backgrounds and perspectives. What is implied is that there are methods and practices that the region may use to tap into and combine the diverse knowledge of its people and this is only possible in a common education space, creation of shared spaces and shared goals and the sharing of mental models; allowing for a sound mix of people from various cultural backgrounds and functional areas, existence of diverse perspectives and backgrounds and existence of inter-institutional communities formed by people with different mindsets and mental models; exposure to a great variety of data, insights, questions, ideas and problems; application of creative techniques for metaphors, analogies and insights; and production and sharing of practical and common knowledge.

3. Information Systems and Information Management
The use of information technology and information systems (IT/IS), within a planned information management framework can significantly increase the scale, reach, and efficiency of higher education and access across the borders. Included in this category are
a) The Need for Reliable Data

The availability of timely and reliable labour market data is crucial for effective EAC integration, particularly for the free movement of labour. The availability of such data rests on the existence of a comprehensive and coordinated mechanism for collecting reliable, adequate and timely information on all facets of higher education and the labour market. As a region, however, and individually, the EAC and its member states lack up-to-date labour market information. Even though the EAC countries have, since 2009, identified the need to undertake a regional manpower survey (RMS), the surveys have not been concluded to date due to resource constraints. As a result, the countries have relied on piecemeal, ad hoc, uncoordinated and less comprehensive sectoral surveys to generate labour market information for their use. As it is now, no current data exist on the stock of skills, the characteristics and supply base of such skills, and the extent to which the skills supply side (higher education institutions) responds to the skill needs and requirements of the demand side (industry) in the countries of the region. Lack of such data limits labour market search, job-matching and employment growth. At the same time, without an updated stock of skills and all its facets, the region cannot fully benefit from the free movement of labour. It also cannot develop and implement occupational classification standards, a critical ingredient for an efficient labour market. The absence of timely and reliable labour market information stands to greatly hamper the effectiveness of the EAC integration, particularly the benefits that would accrue from the provisions of Articles 7 and 10 of the EAC Common Market Protocol on the free movement of persons and labour.

b) The Activities to Capture and Store Knowledge

In the managed process of codifying, storing knowledge, and providing efficient access to IT, we need to be mindful about over-emphasizing the role of IT, and to understand that IT is a tool, not an end in itself. CHEA and knowledge management are not synonymous with IT/IS. They are organizational processes that can be supported by the appropriate use of IT/IS as part of the enabling context. Organizational context and information distribution can be facilitated by the use of various capabilities of modern IT. For example:

- Information systems designed for supporting electronic repositories, collaboration, communication, e-mail, and simulation software as alternative delivery models designed to facilitate exchange and organization of knowledge as well as individual learning, promote teamwork and collaboration among the academic professionals in addressing the learning needs of students and knowledge sharing.
- Information systems designed to support collaboration, coordination and communication processes as a means to facilitate learning, research and technology transfer;
• Information systems designed to support teamwork and increase access to enhanced development skills and traits
• Problem-solving systems based on a technology like case-based reasoning
• Virtual communities of practice


While our earlier drivers have emphasized the need for social interaction and cognitive diversity, implying that there are important aspects of the context that are self-organizing and adaptive, this set of conditions stresses the need for the CHEA to also provide a degree of structure and direction to the higher education and knowledge creation activities. The common complaint we have come across is that there is no synchronisation between HEI mission and government education and or development goals. As a result, the manpower coming out of higher education institutions is not adequately prepared to contribute to national development through public and private services. Thus, within the context of regional integration, there is no synchronization of the sectors that either drive or are expected to drive employment within the region.

d) Economic theory postulates that as a country develops labour will flow from agriculture and other labour intensive primary activities to industry and finally to the services sector. In the process, workers migrate from rural to urban areas. The economic transition that is ongoing in different EAC Partner States indicates a mixed scenario in this respect. For instance:

• Burundi Vision 2025 focuses on satisfying the needs of the present without undermining the opportunities of generations to come.
• On its part, Kenya Vision 2030 aims at making Kenya a newly industrialized, middle-income country providing a high quality of life to all its citizens by the year 2030.
• Rwanda’s Vision 2020 is seeking to transform the country into a middle-income economy, and envisages a transformation from a subsistence agriculture economy to a knowledge-based society with high levels of savings and private investment.
• Tanzania’s Vision 2025 seeks to attain a high quality livelihood, good governance, and the development of a strong diversified, semi-industrialized and competitive economy with a substantial industrial sector.
• As for Uganda, the Vision addresses the transformation of the country from a peasant economy to a modern and prosperous country by the year 2035.

e) Within the context of these diverse national development paths, for some countries of the region such as Rwanda, labour could flow from primary to service sectors, while for others, the movement
could follow the path predicted by economic theory. What is important, however, is the difference in the growth and development models adopted by the EAC Partner States, and the ability of the Partner States to embrace education integration. The interplay between education and development results in economic prosperity and brings about social and political integration through sharing of ideas, skills, attitudes and knowledge. Embracing education integration will lead to positive spillover effects in the EAC Partner States creating strong incentives for integration in other sectors, transfer of domestic allegiance and further widening and deepening the integration process.

f) Higher education institutions in the EAC shall be central to the success of the each Partner State's development Visions and the East African Industrialization Policy 2032: the EAC cannot afford to run the risk of losing a generation of talented people, or of a serious decrease in research and innovation activity while other economic blocks are investing heavily in higher education institutions and the next generation of young people who will be the innovators of tomorrow. The EAC higher education institutions collectively add value to the EAC society and the EAC economy. The EAC needs to consolidate Partner State budgets in future by prioritising higher education, research and innovation as every shilling spent at EAC level on higher education will add value by bringing people together, pooling knowledge and creating synergies that could not be achieved at national level alone.

3.6.3 Factors Influencing Establishment of a Common Higher Education Area

**National Interest:** National interest, or to be more accurate, perceived national interest, is the overriding factor influencing a country’s participation in a common education area. No political leader will compromise his or her citizens’ prosperity for the sake of a global good unless an international agreement is seen to be fair. National interest can include:

- Domestic assessment of risk – the extent to which a given country is considered vulnerable to impacts and systemic risks associated with joining an expanded education space, including access, quality and autonomy and sovereignty.
- Public and parliamentary opinion about the importance relative to other social challenges.
- The political influence in particular where higher education plays a significant part in the economy in terms of exports or employment.
- Opportunities relating to the education development philosophy and agenda; for example, the extent to which co-benefits of participation action will benefit the country and the perceived comparative commercial opportunities related to education as a public good and services, and adaptation technologies and services, as well as the channelling of development aid and higher education finance.
**Competitiveness and Dynamism:** Competitiveness is a key factor in internationalization of higher education, particularly in times of economic hardship when the performance of a country’s economy is usually the overriding political concern. Secondly, education and training need to play a decisive role in attracting and keeping talent in East Africa. The productivity gap between the EAC and other regional economic blocks in Africa, Europe, Asia and the USA is an indicator. Reversing this trend calls for investment not only in research and development and ICT, but also in “human capital development”. There is evidence that the reasons for EAC’s under-performance in this area go beyond certain obvious mismatches between skills acquisition and needs. It is more deeply rooted in the insufficient level of educational attainment among the working age population. Education also contributes to entrepreneurship, both by creating awareness of self-employment as a career option and by developing the right culture and skills for it.

Therefore, to address EAC's rising challenges, the EAC must enter a new phase of education development tied to the provision of basic needs and development of a creative economy in an expanded education space. The foundation for this new phase shall be a harmonised higher education system in a defined EAC Common Higher Education Area (EACHEA). In East Africa, as elsewhere, regional integration efforts will very much depend on education systems that prepare the workforce for integrated labour market. The EACHEA will be characterized by structured and coordinated growth and diversification of the higher education sector; rapid economic growth generated by job creation sufficient to absorb the growing labour force, expansion of the private sector and cross-border education; increased productivity in agriculture and natural resources; a dynamic and growth oriented micro, small and medium enterprise sector that creates jobs at low cost, caters to the needs of people at all levels and is integrated in the higher education system for research, teaching and innovation; increased competitiveness of higher education; and restructured and strengthened academia-private sector partnership capable of promoting harnessing and directing potential towards productivity and innovation, and benefiting from post-doctoral engagements. Higher education development and growth structured on this basis will provide widespread benefits for all East Africans improving their access, enhancing productivity and enjoying high returns from skilled workforce. Indeed there is little conflict between high quality education and national development, because national development can only be sustained by rising competitiveness, productivity and incomes of an informed and educated population.

**Social Mobility:** Universities exist to provide high-quality education. But they have a broader economic and social role too - they are the gatekeepers of opportunity and the main pathway into careers in the professions. As the EAC economy becomes knowledge-based and professionalized, the role universities play will assume greater importance. Who gets into university, and how they get on once they have left,
will have a critical role in determining whether EAC’s rates of social mobility can be improved? At present, the EAC’s universities seem to be less open to people from lower and middle income groups in society than those in the EU, US and Australia. Social mobility is about ensuring that every person – and, in particular, every child – regardless of their background, their circumstances, or their social class, has an equal opportunity to get on in life. That entails breaking the transmission of disadvantage from one generation to the next. Partner States see a need to develop access to learning at all stages of life, and in many cases mention a specific strategy regarding the development of lifelong learning. They also stress the role which the education systems must play in developing social cohesion, and in attracting people with difficulties or from minorities into learning so that they can be enabled to play their full part in society. In this connection, there is need for learning to become more attractive and more responsive to the specific needs and circumstances of learners, and governments must make more effort to expand space for participation of all persons in the higher education system. Therefore:

a) To ensure that historical differences are narrowed, and education builds a classless society, the Partner States shall make deliberate effort in redistribution of higher education to communities affected by historical inequalities. Setting aside resources to develop these areas and improve provision of education is a prerequisite to widening and deepening the integration process.

b) The cost of education is seen to contribute increasingly to cross-border student mobility. In order to ensure equitable distribution of costs and benefits of education, Partner States shall harmonise tuition fees in higher education institutions.

Openness/Reputation/Leadership: How a country wishes to be viewed on the international stage may drive some countries to take on relatively ambitious positions in regional integration. Mexico sees itself as a regional leader and, according to its legislators, this leadership is one reason the Mexican government and legislature has taken on a relatively progressive position both domestically and internationally. Similarly, the EAC would want to enhance its strategy so that it is seen as more of a leader in higher education.

a) EAC Partner States are in consensus about the need to open up education systems to the influences of other parts of society – parents, local institutions, local businesses and exchanges, mobility, networks. This is necessary not just because of the increased mobility, both professional and geographical, that people undertake during their working lives, but also as part of the way in which the EAC has to adapt to meet the challenges of a dynamic and fast changing global economy. In addition there is the need for higher education institutions to increase their links with the local environment, businesses and employers in particular, so as to increase their understanding of the needs of employers and thus to increase the employability of learners; to ensure an openness of spirit towards other countries, and the wider world for comparability of
their programmes and internationalisation of their qualifications. Therefore, the Partner States shall put in place policies and structures to support:

- Strengthened and dynamic academia private sector linkages,
- Increased student and academic mobility and exchanges; and
- The evolution and growth of a spirit of enterprise as an active and reactive strength in curricula, and ensure that young people have the chance to develop in this sphere from an early age.

b) In an EAC common space promoting dialogue with, and engaging a variety of stakeholders at different levels, ensures impact on society, and the development and dissemination of local knowledge in an international context. It contributes to talent development by offering benefits to the individual, the university community and society. It requires particular efforts to be made to facilitate more and better interaction between the university and its local community. Knowledge moves with people, and thus increasing the exchange of young researchers and promoting mixed career profiles between academia and industry, across the borders, and in a common space is of particular importance to institutionalizing regional education integration mechanisms and ensuring a sustainable people driven common education space.

### 3.7 Conclusion

Although we have witnessed significant reforms, they have not been done outside the education philosophy and culture transferred to the Partner States at independence. This means the reforms are not radical enough to shift the mind-set and are not meant to synchronize the HEI’s mission with government priorities and the expectation of employers and business community, and the society in general. This study examines the current state of higher education qualifications systems and their contribution to human resource development and productivity in the EAC Partner States, profiling the various types of programs and models that currently exist, the extent to which these programs assess for student competences or learning outcomes, and the extent to which these programs operate outside of a credit-based system, and concludes that courage and leadership are required to make the EAC education system innovative and market driven.
IV. Higher Education Quality Assurance Practices in the EAC Region

4.1 Introduction

The EAC-PS are witnessing rapid growth of HEI and student population. Just over the last one year alone the institutions increased by 21% from 134 to 161 universities. The rapid increase in the number of higher education providers over the last two decades sounded bells on quality education and employability of graduates. In response the Partner States proceeded with necessary reforms, which have seen new policy and legal frameworks to regulate establishment and governance, and moderate programme development and delivery in higher education institutions.

The East Africa Universities are institutionalizing new quality assurance mechanisms different from traditional self-regulating systems. Higher education is now accessible to many, unlike in the past when university education was for the few and strictly provided by the governments alone. Quality assurance in universities has become a necessary tool for guarantee of quality.

Quality education is measured through its fitness for the core objectives of university education. The demand for knowledge and skills relevant to the job market necessitates the universities to provide education that enables the students to satisfy employment requirements and respond to the needs of any end user of the university education.

4.2 Demand for Quality Assurance in Higher Education

For a decade now, the IUCEA, in collaboration with the national authorities for higher education - NCHE(B), CUE, HEC, TCU and NCHE(U), and member universities and higher education institutions, has been implementing a capacity building initiative for member universities, aimed at establishing and mainstreaming a regional higher education quality assurance system in East African Community area. This programme has been supported by the German Academic Exchange Service (DAAD) in form of funding and strategic expertise.

In order to establish an East African quality assurance framework it was found necessary to develop a handbook containing quality assurance instruments to guide universities and national higher authorities and other stakeholders in assessing, and assuring and enhancing the quality of higher education in the EAC region. This instrument is for guiding quality assurance processes in the region, to build quality culture and to enable higher education institutions and authorities to build better quality awareness among management, staff and students. The handbook is based on worldwide experiences and quality assurance good practices as practiced by the national higher education authorities.
Quality assurance effectively taps into HEI’s convictions and passion to human capital development. They have a deeper sense of responsibility and service when their institution is acting in the right way—for the long term, out of a genuine belief in serving clients\(^{29}\) versus when it is just reacting to short-term pressures in a never-ending cycle of “flavor of the year” to meet its student enrolment and revenue expectations. On one side students, parents and sponsors view each university according to its established tradition and added values, demonstrated through the performance of its graduates in the workplace and professional cycles. On the other hand is the autonomy and academic freedom of universities and academicians. QA requires universities to be more accountable to the public while maintaining their autonomy and academic freedom. QA transforms graduates into competitive comparable persons whose qualifications are national and international and not attributable to any individual institution. The role of the HEI is to guarantee quality and to meet the expectations of the employer and the business sectors.

Academic standards are established and maintained by higher education institutions themselves using an extensive and sophisticated range of shared quality assurance approaches and structures. Standards and quality in institutions are underpinned by the universal use of external examiners, a standard set of indicators and other reports. Presently the national QA authority (QAA) for HE is the national higher education authority for each country - NCHE (B), CUE, HEC, TCU and the NCHE(U) and in professional areas the relevant professional, statutory and regulatory bodies. This ensures that institutions meet national expectations described in the QA Handbook: subject benchmark statements, the Code of Practice and programme specifications. QAA conducts peer-review\(^{30}\) based audits and reviews of higher education institutions with the opportunity for subject-based review as the need arises. The accuracy and adequacy of quality-related information published by the higher education institutions is also reviewed.

The challenge today is that the respective education authorities - NCHE (B), CUE, HEC, TCU and the NCHE (U) do not have the sophistication and capacity to provide ISO type certification to universities and other higher education institutions - an assignment that has been left to national bureaus of standards, institutions new to the education system and tempted to approach quality assurance in education as robots. It is important that the QA units in the respective countries are elevated by statute, policy and institutional arrangement to full-fledged QAA in order to take upon the responsibilities they were intended for, including supervision, education and certification. Each Partner State should therefore undertake, in collaboration with the IUCEA, to establish a national quality assurance authority.

\(^{29}\) The HEI have defined their clients to include students, guardians, staff, alumni, labour market, general public, the government, the NGOs and other higher education institutions. Survey Questionnaire, 2014 January.

\(^{30}\) Since the inception of QA in the region, Peer Review has been done only ones.
4.3 Challenges of Quality in Higher Education

Higher education providers everywhere face a daunting paradox. On the one hand, they operate in an increasingly complex environment and must deliver on an expanded set of policy and operational objectives external to their environment, at the same time struggle to stay within their mission. In a world characterized by macroeconomic uncertainty, rapid social change, and technological innovation, citizens’ expectations of what HEI ought to deliver are rising. On the other hand, HEI are hampered by growing student populations and shrinking budgets. The ratio of general higher education budget to gross domestic product for the region, for instance, is a paltry 1.05%. Meanwhile, public trust in HEI is eroding. Against this backdrop, not only must HEI do more with less; they must do so in highly visible ways, without compromising quality and public trust in order to regain the faith of their constituents. The quality of higher education touches on every aspect of a university’s core functions namely teaching, research and public service. QA is expected also in governance and management of Institutions. There is a lot of work done in mainstreaming quality assurance in teaching and learning. Very little has been formalized in assuring quality for governance and management/administration of the University.

The quality culture that permeates all aspects of university life was not verified. One could only see self-evaluation and external evaluation of Institutions and academic programmes. One could not find Quality Assurance guidelines for student’s service, research, governing organs etc. However some universities were able to prove that through institutional evaluation reports submitted to regulatory bodies form evidence that quality assurance is also guaranteed in other areas of the university system apart from academic areas. Evaluation of organizational performance is yet to be an integral part of the QA management process in most universities.

Universities have developed the culture of compliance with the requirements of regulatory bodies. This forms a basis for the future quality assurance initiatives. The HEI were able to identify thirteen key challenges to the effective implementation of QA. The Table 13 below summarises the results indicating the percentage of universities considering it an important challenge.

Table 13: Challenges to Effective Quality Assurance Implementation

<table>
<thead>
<tr>
<th>Challenge</th>
<th>% Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insufficient Teaching/Learning Infrastructure due to Scarce Resources</td>
<td>48.3</td>
</tr>
<tr>
<td>Attitude and Awareness - Mind Set;</td>
<td>48.3</td>
</tr>
<tr>
<td>Lack of Experience and Exposure</td>
<td>48.3</td>
</tr>
<tr>
<td>Lack of Commitment</td>
<td>48.3</td>
</tr>
<tr>
<td>No Legal Framework for Quality Assurance</td>
<td>36.4</td>
</tr>
<tr>
<td>Lack of Financial Resources</td>
<td>36.4</td>
</tr>
<tr>
<td>---------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Both Academic and Administrative Staff do not Understand and Observe the Culture of Quality.</td>
<td>27.3</td>
</tr>
<tr>
<td>Most Of The Training Programs Have No Professional Bodies</td>
<td>24.1</td>
</tr>
<tr>
<td>Weak or no Monitoring and Follow-up System - Feedback too slow or lacking</td>
<td>18.2</td>
</tr>
<tr>
<td>Partial Or Lack Of Cooperation By Some Departments In Complying With Quality Assurance Exercises e.g. Students/Lecturer Evaluation.</td>
<td>17.2</td>
</tr>
<tr>
<td>Rapid Growth Of Teaching Staff and Especially Engagement of Part-Time Lecturers</td>
<td>3.4</td>
</tr>
<tr>
<td>The Rapid Growth Of The University - there are many Campuses across The Country.</td>
<td>3.4</td>
</tr>
<tr>
<td>National Qualification Framework not in place.</td>
<td>3.4</td>
</tr>
</tbody>
</table>

Source: Field Survey Results, December 2013-January 2014

### 4.4 Quality Assurance of Higher Education Inputs

HEIs in East Africa depend on secondary schools for bringing higher education within reach of their pupils. In an ideal world, all schools would be of a uniformly high standard and universities could simply select students on the basis of prior attainment. In the real world, however, there is no such level playing field of opportunity even among students in the same category as private secondary schools, or public secondary schools, or rural secondary schools. The pool of talent from which HEIs can currently recruit is more limited than it should be because of the gap in attainment between private and public schools, between better-off pupils and worse-off ones, and between those who study the core academic subjects identified by the most selective universities as ‘facilitating’ entry and those who do not. If access to HE is to genuinely become classless, there will need to be progress in closing each of these attainment gaps.

The priority therefore, is to expand the pool of school leavers from which HEIs can recruit. In this regard, the overall objective for the three primary stakeholders (schools, HEIs and Governments of the Partner States) should be to raise overall standards and at the same time close the education attainment gap between the less well-off and the better-off pupils. The principal responsibility for expanding the pool of potential applicants to higher education rests with government and with schools. But universities also have a role to play. Universities are, of course, autonomous organisations with the right to set their own agendas, but it would be welcome if all universities felt able to make similar commitments. In order to analyse the ways in which universities can take action to improve social mobility, the life-cycle of students has to be understood. We see four stages of the life-cycle of a student:

**Stage 1: Preparatory:** – The outreach activity which universities must undertake to improve attainment and aspiration, and to help potential students make the right choices. This is done while the student is in secondary school.
### Stage 2: Admission

The admissions process and criteria which universities use.

### Stage 3: Retention

The work of student services and bursaries in improving rates of retention at university.

### Stage 4: Transition

The steps which universities take to help students succeed in their chosen career after graduation.

Identifying these **entry, progression** and **transition** points in the life-cycle of the student is a quality assurance function of student social mobility of HEI interventions at two fronts: access, and program development and delivery. Some universities have embodied a commitment to social mobility in the hard work of their widening participation teams and in their mission statements. For example the Aga Khan University aims “to improve school achievement through research and outreach, in collaboration with international partnerships”; the State University of Zanzibar has as its main goal “Access to lifelong learning opportunity to wide audience including general public, professionals, business community and residents of Zanzibar and other regions”, but this is as far as they go. Nearly all universities in the region are short on commitment and action in realizing their objectives towards student social mobility.

#### 4.4.1 Student Admission

HEIs in the EAC region rely on academic attainment at secondary school level as the primary criterion against which an applicant

<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Responsibilities</th>
</tr>
</thead>
</table>
| **Government** | • There is growing demand for Partner States to put in place new national funding programmes directed in a more strategic and evidence-based way, targeting more progress on improving quality assurance pathways at secondary school level, widening participation and fair access by secondary school pupils to higher education.  
• The education sector as a whole should make the use of contextual data - as universal as possible in admissions processes. |
| **HEI** | • Only a handful of HEIs in the EAC Partner States undertake a variety of activities to take information about higher education to school pupils and local communities. HEI have indicated that their budgetary and staff constraints do not allow them active involvement in school activities that would have improved quality at secondary schools and informed student access to HE.  
• There is a need to bring greater coherence and energy to universities’ outreach work with schools, parents and pupils in order to grow the pool of pupils from which they can recruit.  
• There is a need to ensure that university admissions processes are structured in a way that allows the fairest judgements to be made on which students have the aptitude, ability and potential to benefit from higher education. Universities, as autonomous institutions, should be able to determine their own admissions criteria. |
| **Schools** | School have a duty to forge relationships with universities by opening their doors and seeking in universities. The closeness of students to universities increases their confidence and uplifts performance enabling them to make informed choices for university education and career development |

---

East African Community Qualifications Framework for Higher Education Situation Repo
should be judged for a place, but it is not, or has it ever been, the sole determinant for most universities. A growing evidence base suggests that over-reliance on secondary school results engineers a distorted social intake to universities, and fails to meet the criteria of quality and excellence. The problem is that the way admissions processes work, often inadvertently excludes students who could do well at university from ever being admitted.

In the consideration for admission important performance measures related to resources, skills and traits have been left out. These measures would be useful in capturing contextual data (such as the type of school attended by applicants, their parents’ education level, and their family’s income; and attendant skills and traits the student brings). Only 1.5% of the universities indicated that in addition to the established requirements they used contextual data, and 20% have indicated they would consider using contextual data in admission in future.

HEI institutions today use what they call cut-off points in admission of students usually set above what the higher education authorities have set. The University of Nairobi for instance states, "the Joint Admissions and Placement Board and the Board for Parallel Programs set the cut off points. Based on this, we take the best only. Our cut off points are higher than all the other universities. For Parallel programs we also have cut of points which are higher than the rest. Each course/program has its own admission criteria".

Ideally all HEI should use contextual data. For this to become functional and operational the various authorities of higher education in each Partner State NCHE (B), CUE, TCU, HEC(R) and NCHE (U) should:

- Agree a common statement of support for the appropriate use of contextual data - agreed dataset
- Take steps to make the admissions system less complex and easier to navigate.
- Agree how online learning and Open University programs can be developed to broaden the range of students who are able to benefit from higher education. Across the world, leading-edge universities and other providers are developing innovative online and open-university higher education opportunities. The explosion that we are likely to see in online learning over the next decade provides an opportunity to bring people into higher education – mature students especially – who would otherwise be excluded.
- Take action to embed foundation year or bridging programmes into the mainstream of higher education, not least by allowing a student who completes a foundation year programme in one university to have it recognised at another as a valid level of prior attainment.

In addition, the HEI themselves should take steps to improve the transparency of their admissions processes and consider ways in which diversifying admissions criteria could broaden their pool
of potential applicants without undermining their standards. Highly selective institutions in particular should consider running more foundation programmes and embracing the use of contextual data. In other words, those institutions that maintain the highest entry criteria need to do more to improve the flow of potential applicants to their institutions.

4.4.2 Student Retention and Progression

Available evidence suggests that Burundi and Rwanda have the best records in the region on student retention, especially in public higher education institutions, compared to the other Partner States. Overall, there are some causes for concern, in particular, improvement in retention has been too slow, the discrepancy between universities remains too high and the drop-out rate for students from poorer backgrounds is higher than for those from relatively affluent backgrounds, especially in Kenya (25%) and Uganda (19.7%). It is time that universities became more intentional about tackling retention and providing the appropriate student support services. It is also time to assess where spending on retention can have the biggest impact.

Most HEIs, have an assessment system structured as follows: Course work - Project - Semester Exam. Only a handful go beyond recall and such institutions have structured assessment to include Course Work - Project Work and Presentation - Student Pairing - Personal Development - Semester Examination. This approach to assessment has enabled students to be assessed on effort, problem solving exercises, analytical skills and contribution to society. Assessment of student involvement in active learning practices such as these has made it possible to assess the institution’s contribution to students’ cumulative learning. However in almost all HEI, utilization of active learning practices is either unknown or unsystematic, to the detriment of student learning. In fact, sometimes assessment has contributed more to student attrition than tuition fees and other social costs.

We noted lack of enthusiasm of HEIs in using the orientation phase of entry into the university program and the first year of study to fully integrate the student into the university system and involve them in active learning. The orientation period (maximum of four weeks) is actually set aside for students to hop from one course to the other, change or transfer from one course or programme to another but within the cut of points. This period, and the first year of study should actually be used to introduce the student to high-impact learning practices that are also essential in nurturing competence.

Some HEI such as Strathmore University and Tumaini University Makumira have included some doses of high-impact practices that increase rates of student retention and student engagement. Examples of what they have put in practice include
• Building into the curriculum first-year seminars or other programs that bring small groups of students together with faculty or staff on a regular basis. The highest-quality first-year experiences place a strong emphasis on critical inquiry, frequent writing, information literacy, collaborative learning, and other skills that develop students’ intellectual and practical competencies;

• Involving students with cutting-edge questions in scholarship and with faculty members’ own research;

• Encouraging students to take two or more linked courses as a group and work closely with one another and with their professors. At Strathmore this has also included combining a a bachelors study programme with a professional course (Bachelors in Economics or Mathematics with Certified Public Accountants study programme);

• Promoting a set of common courses instead of a core curriculum model;

• Organising students into learning communities with the intention of stimulating inquiry and critical thinking;

• Encouraging students to do intensive-writing at all levels of instruction and across the curriculum to stimulate quantitative reasoning, oral communication, information, literacy and ethical inquiry. Makumira has included music in this process to strengthen the thinking process and grow creativity.

Sokoine University (SU), the JKUAT, the Strathmore University and TUK have incorporated collaborative learning to promote retention and progression. Collaborative learning is designed to help students to learn to work and solve problems in the company of others, and sharpen their own understanding by listening seriously to the insights of others, especially those with different backgrounds and life experiences. Approaches range from study groups within a course, to team-based assignments and writing, to cooperative projects and research.

All HEIs are, in one way or the other, providing research experiences for students in all disciplines. However, a lot still needs to be done with undergraduate research in order to connect key concepts and questions with students’ early and active involvement in systematic investigation and research. The goal is to involve students with actively contested questions, empirical observation, cutting-edge technologies, and the sense of excitement that comes from working to answer important questions.

Some HEIs are now appealing to diversity and global learning. However, apart from promoting tourism, theatre and languages, they are yet to develop courses and programs that help students explore cultures, life experiences, and worldviews different from their own. These studies—which may address EAC and African diversity, world cultures, or both, may also explore difficult differences such as
racial, ethnic, and gender inequality, or continuing struggles around the globe for human rights, freedoms, and power.

A number of HEIs are emphasizing **Service and Community-Based Learning**. In these programs, field-based experiential learning with community partnerships is an instructional strategy, which has been adopted and perfected by a number of institutions among them NMAIST, SU, Egerton University (EU), United State International University (USIU) and Mount Meru University (MMU). The idea is to give students direct experience with issues they are studying in the curriculum and with ongoing efforts to analyse and solve problems in the community. A key element in these programs is the opportunity students have to both apply what they are learning in real-world settings and reflect in a classroom setting on their service experiences. These programs model the idea that giving something back to the community is an important university outcome, and that working with community partners is good preparation for citizenship, work, and life.

**Internships** are another increasingly common form of experiential learning. The idea is to provide students with direct experience in a work setting—usually related to their career interests—and to give them the benefit of supervision and coaching from professionals in the field. If the internship is taken for course credit, students complete a project or paper that is approved by a faculty member. At the moment, the only structured internship programs across the region are for students taking education, medicine and to some extent law. All the other programs are poorly organised and do not meet the threshold of an internship program:

- The tendency of having internship coming during the final year of study negates the intent and purpose of internship as part of the learning program and fails to integrate its lessons into the course. Internship should be part of each year's study.
- Sometimes, the problem is that organisations invest in the wrong kind of training. Research has demonstrated that adults learn six to seven times more through practice and feedback than through lectures, yet far too many HEI training programs consist of classroom sessions or self-study modules. Smart institutions are ensuring that their students develop and hone the skills that truly matter—whether those are core competencies, sector-specific capabilities, or broader expertise in strategy and risk management.

### 4.4.3 Post-University Transition

The question of what happens to students once they leave university and their ability to succeed in their chosen career is all too often ignored in considerations about what HEI can do to enhance social mobility. HEI have a crucial role in ensuring that everyone who graduates is equipped with the tools to succeed in the workplace. Across the higher education sector, there is a growing consensus that
universities have to do more to prepare students for entering employment in addition to supporting them in achieving a good degree. Employers are looking for experiences that demonstrate communication, team work and organisational skills. HEI should be clear about the workplace capabilities they aim to provide students with. More than that,

- It would be in the interests of students and employers to have performance tables that reflected how effective each particular course was in providing a range of skills, with the HEI rating being an aggregation of all its courses.
- Performance tables need to better reflect educational gain, and outcomes in terms of the career paths that graduates achieve once they are in the labour market.

Given the power of performance tables in shaping behaviour, the Partner States should take the lead in establishing new outcomes-focused national performance tables for HEI. The various higher education authorities - NCHE (B), CUE, HEC, TCU and NCHE (U) are already, at individual level contemplating establishing a national higher education rating framework - this should be done together with the IUCEA so that the region has a rating system live to the needs and direction the EAC education system should be taking.

### 4.4.4 Pedagogical Processes and Delivery Methods

In the whole of East Africa teachers in HE are not required to hold accredited teaching qualifications either by statute, standard or convention. They stand out as the last of the 'non-proessions'. Elsewhere in education, including non-HE areas of post-compulsory education, all teaching staff are required to be qualified or in the process of qualifying as teachers. The EAC Partner States are not unusual in reflecting this picture, but the situation is changing and has seen rising activity in promoting and delivering teaching development strategies, especially since the clamour for reforms in higher education which started two decades ago.

The approaches that have been put in place across the EAC have been very diverse. These reflect the different policy contexts across the five Partner States, origins of different parts of the ‘HE sector’ and especially the independent pedagogic traditions of different institutions and disciplines. The variety that has emerged has encompassed predominantly institutional programmes combined with some nationally supported programmes, as well as subject-focused initiatives including some emerging areas for public policy, such as entrepreneurship education. Some institutions such as the MUHAS, UON, JKUAT, TUM, and Kenyatta University have gone further to put in place mechanisms to support their academic staff to meet pedagogical threshold, including developed in-house teaching skills enhancement programmes for their academic staff. In addition Kenyatta University has gone further
and developed a Regional Centre for Capacity Development and a Centre for Teaching Excellence. These two centres are open to anyone who wants to enhance his/her pedagogical skills.

Public policy in the EAC has played an important role in stimulating these developments. Thanks to the growing importance of quality assurance and the drive for competence-based learning, which is aimed at enhancing the quality and impact of learning and teaching in HEIs. This has included a series of cross-institutional and partnership arrangements including QA Peer Missions, and organised exchange programmes with partners in Europe. A review of the on-going practices in pedagogy suggest that delivery has emphasised institutionally led strategies and provision. Here, institutional approaches have evolved mostly independently but under some common stimuli. Over the last five years, this has included the adherence to the Quality Assurance Framework (QAF) - The Handbook “A Road Map to Quality: Handbook for Quality Assurance in Higher Education” for teaching and supporting learning in higher education, which has provided a focus through a framework of common standards, and encouraging institutions to develop and apply teaching development programmes fitted to the specific needs of different students and market, and by implication academic and other staff of the institution.

Approaches to teaching development in EAC HEI continues to evolve, and teaching development in higher education has correspondingly attracted growing research interests. This in turn has resulted in a widening literature aimed at scholarly inquiry and knowledge exchange, much of this has traditionally focused on processes - the ways in which teaching development programmes are developed and delivered. There has been, until recently, much less systematic research interest on programme outcomes, and the difference they make to participants and practice. It is possible to move to this level once the governments of the Partner States and national authorities for higher education embrace teacher development programmes to boost teaching quality and institutional responsiveness at the university level.

As a matter of importance, both the IUCEA and the Partner States should consider institutionalizing teaching development programmes for university academic staff. But to do this IUCEA has to undertake the following

- Identify and document existing university teaching development programmes;
- Review the literature that exists on the impact and efficacy of teaching development programmes, in order to draw conclusions about the elements of programme design and delivery that appear to have the greatest impact on the improvement of student learning;
- Review the literature in order to make specific recommendations about the method and nature of future research into the efficacy and impact of teaching development programmes;
- Assess the gaps and weaknesses in the available research, with a view to identifying themes, priorities and methodology for any future research in this area.
The governments on their part shall have to make substantial public investment to encourage good teaching practice and to reward those who are excellent in teaching. In fact both the IUCEA and the EAC should endorse the aim to improve the status and recognition of excellent teaching and learning as a key element in the mission of HE, alongside research. In addition public policy across the five Partner States should chose to promote institution-led approaches and strategies with encouragement also for partnership activity development.

4.4.5 Quality Assurance Mechanisms

The findings of the study show that in all five Partner States the regulatory bodies have put in place infrastructure enabling each university to have quality assurance mechanisms\(^{31}\). It is also clear that at there is generic regional higher education QA synchronized with each Partner State higher education management and HEI mission and management philosophy. Some universities believe that QA is a duplication of what the department of research and publication is doing\(^{32}\).

More than 60% of the established higher education institutions in the EAC region have operational QA departments. To operationalise QA some HEIs have put in place appropriate institutional, policy and regulatory frameworks. In most institutions the QA is housed in the office of the Vice Chancellor or Deputy Vice Chancellor. In such cases the QA is given a high profile and institutional recognition, and plays a big role in decision-making. In other institutions it is established as a standard alone office - the Office of Quality Assurance or QA/AC Bureau or as Quality Assurance and Promotion Bureau with a full-time Manager or under the direction of an academic staff designated QA Coordinator/Director. In the institutions where the QA has been given prominence and it is active in the governance of the Institution, the Office functions through a QA Committee chaired by the Deputy Vice Chancellor/Provost Academic Affairs. This also ensures that overall, the QA has powers to establishment technical committees at the levels of Department, Faculty, Directorate, Institute, Centre and university-level.

HEIs that already have operation QA, are using the system to enforce minimum entry requirements for university admission, monitor attendance of students and coverage of courses by faculty through log books, and to include external examiners in the end of Semester and final qualifying examinations. Some universities have established an academic directorate and admission committee who ensure the evaluation and admission of students according to the required structures, standards and qualifications guided by student national examination and admissions criteria.

---

\(^{31}\) Universities, which are also members of IUCEA have evolving quality assurance system

\(^{32}\) A lot of education, training and awareness raising is needed to internalize the role and functions of QA in HEI and also to change the mind-set of those who resist change
Given QA is a recent phenomenon in HEIs in the region, the institutional, policy and regulatory frameworks have not fully formed in most institutions, and therefore not operating at optimum. In fact in a majority of the institutions, they are in infancy state, the academic staff are yet to go through training/sensitization on the QA and its functions in education and training, research and outreach; they are not yet fully prepared to do the job pending availability of funds to conduct training seminars on setting quality standards and monitoring of quality indicators.

In some HEI, the QA is using periodic seminars; academic development and improvement activities; committees at undergraduate, postgraduate, and practical training levels; university examination moderation committees at different levels (departmental, faculty, directirate, institute, centre); and the university senate to widen and deepen the understanding of quality assurance practice within the HE framework, and to ensure that quality assurance isafeature across the qualifications framework. In addition to performance evaluation and reporting ensuring that quality assurance is maintained by monitoring quality in all the departments and schools to ensure they use the university policy on student selection, staff recruitment, providing conducive teaching and learning environment, and maintaining a system of continuous assessment and improvement of staff and students through open channels of communication.

The QA department is fed by all academic and non-academic departments, and feedback from students - through academic audits, student course evaluation, monitoring of teaching/learning processes and monitoring of the conduct of examinations.

Some universities have established high level University Quality Assurance Committee chaired by the VC and comprising heads of key functional units of the university. This Committee is responsible for regular monitoring of all activities and operations of the university. The Committee also works with the top management and departments in implementing quality assurance matters in the Institute with a view to supply departments with updated evaluation schedules and instruments, provide heads of departments with feedback on internal and external evaluation results, and to ensure that departments adhere to the established quality assurance procedures.

4.4.6 Mainstreaming Quality Assurance in Higher Education

It is presumed that the establishment of a QA is the adaptation of the IUCEA Handbook “A Road Map to Quality: Handbook for Quality Assurance in Higher Education” to the HEI’s needs and management philosophy. QA is a complex management instrument, which in this evolving dynamic world of education demands the application of larger data sets, faster computational power, and more
advanced analytic techniques. Treated and approached in this manner QA has the potential to spur progress on a range of HE development priorities. Sophisticated modeling in QA can help to identify waste, thus empowering the institution and opening up new frontiers where the intervention of QA in problem solving can support continuous improvement.

Powerful data-driven analytics also can help to solve previously unsolvable (and even unknown) problems that undermine efficiency in complex HE environments: hidden bottlenecks, operational rigidities, and areas of excessive variability. Similarly, the power of data to support improvement efforts in related areas, such as quality and production planning, is growing as universities get better at storing, sharing, integrating, and understanding their data more quickly and easily.

Nonetheless, to get the most from data-fueled lean production, HEIs have to adjust their traditional approach to the philosophy of continuous improvement. In our experience, many find it useful to set up special data-optimization labs or cells within their existing operations units to inform the QA process. This approach typically requires mainstreaming QA into all departments and units of the Institution, and ensuring appropriate management structures and systems including working teams of specialists, operations-research experts, and statisticians familiar with the appropriate tools. By connecting these analytics experts with their frontline colleagues (teaching staff), HEI can begin to identify opportunities for improvement projects that will both increase performance and help academic staff and HE administrators in new ways.

The good news is that HEIs can deliver the performance their constituents need and expect— and, indeed, some have begun to do so. Based on our on-the-ground experience working with HEIs, and numerous conversations with public and private leaders and thinkers, we conclude that what works today is a more disciplined, systematic approach to solving industry problems. It is a call on HEIs to favor the rational and the analytical over the purely ideological, and to be willing to abandon tools and techniques that no longer work. This should be driven by four core principles:

- The use of better evidence for decision making,
- Greater engagement and empowerment of stakeholders,
- Thoughtful investments in expertise and skill building, and
- Closer collaboration with the public, private and social sectors.

Each of these principles is central to the HEIs process of realizing their mission of creating more effective yet affordable human capital for nations that are desirous of becoming knowledge societies, industrialized and high performing. These set of principles would also clear the way for the involvement of society in shaping the human resource development function.
The Use of Better Evidence for Decision Making

Results-oriented (often referred to as outcomes-based) HEI are increasingly making use of hard data and statistical analysis to inform decisions on programs, skills development initiatives and competence development strategies. Evidence-based decision making creates real value, both financial and nonfinancial, at individual and institutional levels and for all citizens. Done right, it allows HEI to assess program performance and effectiveness, interpretation and integration of national policy and priorities in education and research programs, measure progress, and engage in a more rational public debate on sensitive but outcomes based issues.

We have proposed three forms of evidence-based decision making in HEI with value addition to QA:

Collecting Credible Performance Data
HEI must decide what to measure and how, always with an eye on the overall goal of the program or initiative. One of the goals of a HEI-wide transformation effort is to reduce the perceived complexity of dealing with the public as part of this initiative, the HEIs must identify life events during which it has to interact with the stakeholders and the general public and to simplify each of these interactions, all the while measuring citizen satisfaction to track whether the changes are actually working. Similarly, as part of a broader open HE initiative, the Jomo Kenyatta University of Agriculture and Technology has started a radio programme of around fifteen key performance indicators relating to the country's health, education, safety, business conditions, agriculture and community development outcomes. The radio acts as a scorecard for citizens, sharing the university's performance and relationship with stakeholders against these metrics. However, the university is yet to program and analyse the results of this engagements

Benchmarking Consistently against Peers
National and international benchmarks are powerful but underutilized as inputs into HE program design and decision making, particularly in a world where HEI everywhere face similar issues and no single HEI excels across the board. On almost any metric—from diploma graduation rates to unemployment to post-doctoral programs — there are wide variations in HEI performance across the country and even within the EAC region. But every HEI’s best practices can be useful to other HEIs and can motivate change. The introduction of the IUCEA’s Programme for Peer Review, for instance, has spurred reform in universities in the region and subsequently highlighted a range of best practices in education, such as the building and nurturing of a high-quality academic staff pipeline, through introduction of pedagogy training for academic staff.

Using Data to Design and Improve Interventions
Reliable, clean data can inform the design or refinement of HEI initiatives. The IUCEA in collaboration with HEI should consider establishing a framework explicitly to use data about student and citizen behavior to improve the effectiveness of education and research interventions delivered by universities.
As it has been proven by the medical field, the framework would use randomized control trials to test the impact of small changes, to improve both learner and academic staff performance at all levels and units. MUHAS has a wealth of experience in this area, and what remains to translate this into instruments for university management.

**Greater Engagement and Empowerment of Stakeholders**

Innovative HEIs are making it easier for students and their graduates to access private and public services and contribute increasingly to national development. And the most forward-thinking HEIs are starting to master the shift from simply providing knowledge to regularly engaging and empowering students/learners, involving them in the design—and, in some cases, the delivery—of education and research products. This shift is not just about increasing choice and well-being; it’s also about boosting productivity, with the help of technology and the use of open data - elements critical in skills, competences and talent development and central to productivity, performance management and innovation.

**Using Innovative Channels to Make Services More Stakeholder-centric**

The private sector’s responsiveness to customer demands has led to heightened public expectations of HEI. Because people can do their banking and shopping online, for example, they expect to be able to apply for driver’s licenses and submit tax returns online as well. HEIs are expected to supply the human resource capacity that can make this possible, and the government should invest to meet these expectations. But being citizen-centric is not just about the Internet: Australia, for instance, has pioneered mobile government offices—satellite-equipped trucks—that serve as a one-stop-shop for government services for people living in remote areas. The EAC higher education system is challenged to walk ahead of technological innovations and empower their students and learners to be innovators and employers. At the same time, the HEI are expected to be technology savvy themselves to reduce the costs of transacting business and to move towards technology sustainability driven models.

**Soliciting stakeholder Input to Improve HEI Services**

Innovative and outcomes based HEIs are creating new ways for students to make their voices heard, giving them the ability to provide input into national development, and to allow the public to search, view, and comment on individual university programs, regulations and practices. Some HEI such as Strathmore University are going even further to solicit citizen feedback on their programs by allowing their law students to participate in the drafting of County constitutions and subjecting them to residents' scrutiny, a significant example of “deliberative democracy” at work - while at the same time developing the skills and competences of the students.

**Tapping Stakeholders to Help Deliver Better Services at a Lower Cost**

Stakeholders can play an important role not just in the design but also in the delivery of HEI services and programs. Just like the City would allow its residents to report nonemergency complaints—about
things like potholes or garbage collection—via a website, a mobile app, text messaging, Skype, or phone, a HEI could allow its stakeholders to contribute to the review and development of its programs. Universities are now developing platforms, design to invite participation of stakeholders in informing the institutions. Best platforms are those that operate as free web-based application programming interfaces. Such platforms, along with third-party apps empower stakeholders to do some of the work that has traditionally fallen to HEI administration including coming up with ideas on financing, development, research, and do much of the work, but also reap the benefits.

The trend toward participatory HEI can only gain in strength, and by engaging and empowering stakeholder to co-design and co-deliver HEI services, universities cannot only better meet employer and industry needs; they can also shift some of the burden of accountability from the university to the people, allowing high-quality delivery of services in an environment of constrained resources. The participatory approach recognizes the redefined roles as the:

(a) Academia as a creator of firms/enterprises through innovation incubator facilities, and centres of excellence for innovation and entrepreneurship development, and not just a provider of education, training, research and technology;

(b) Industry as an educator and trainer, whose entry into the education and training sphere would be based on structured internships and fellowships, academia/industry personnel exchange programmes, and the creation of professorial chairs, and not just supplier of goods and services; and

(c) State as the venture capitalist through (i) innovative financing programs, and (ii) creation of supportive environment for the sustainable growth of collaborative research and development among firms, universities and national laboratories to address issues of national competitiveness, and not just the guardian of political will.

**Thoughtful Investments in Expertise and Skill Building**

Mission-driven employees are among the public and private sectors’ most valuable assets. Unfortunately, many employers fail to get the most out of their people—they do not invest enough in developing their employees’ skills and expertise. For instance, although government agencies have started to embrace “lean” principles such as value-stream mapping and Six Sigma process improvement, many are unable to sustain the impact from these initiatives because they haven’t been deliberate about building internal capabilities. In a 2012 survey of 974 public-sector leaders, found that only about 39% of large-scale public-sector projects fully met their targets\(^{33}\).

---

\(^{33}\) Stacey Dietsch : Leading Transformational Change in the Public Sector, McKinsey Center for Government, May 2013
Sometimes, the problem is that organisations invest in the wrong kind of training. Research has demonstrated that adults learn six to seven times more through practice and feedback than through lectures, yet far too many HEI training programs consist of classroom sessions or self-study modules. Smart institutions are ensuring that their students develop and hone the skills that truly matter—whether those are core competencies, sector-specific capabilities, or broader expertise in strategy and risk management.

**Using Adult-Learning Practices to Build Core Capabilities**

Management skills are crucial to the success of any government program. A study by McKinsey and Oxford University (2013) revealed that more than two-thirds of budget overruns in large-scale IT projects are due to managerial—not technical—shortcomings. Best-practice government agencies are investing to make sure their managers are equipped with the requisite know-how. The US Department of Housing and Urban Development’s Office of Multifamily Housing Programs recently undertook a capability-building program that included a series of process improvements, the introduction of new managerial routines, and intensive coaching on problem-solving skills. The program yielded a reduction of more than 70 percent in the agency’s backlog of housing applications and a 35 percent productivity improvement. When Germany’s Federal Labor Agency undertook a similar program, the agency’s “customers” benefited: their average duration of unemployment fell from 164 days to 136 days. The Swedish Migration Board’s capability-building efforts led to a reduction in average processing times from 267 days to 85 days, saving more than $160 million annually.

These cases demonstrate one thing - that skills and competence development does not end at the door steps of the HEI, they must be carried on by the employer. Universities only provide enabling job entry skills and competencies, the employer provides enhancing skills and competencies.

**Developing Specialized Capabilities in Critical Sectors**

This is a responsibility that HEI cannot undertake on their own, but jointly with the employers, who include government, private and social sectors. Investments in building expertise in particularly important or challenging vertical sectors, such as infrastructure or transportation, and energy; can have significant payoffs. Borrowing from elsewhere, and which is of importance to the East African region today as the Partner States scramble to build modern railway, Hong Kong’s Mass Transit Railway (MTR) developed deep expertise in core mass-transit capabilities such as operations, maintenance, and property management as a result of the government’s investment and rail-led transportation strategy. This expertise has helped the MTR, which is still 77 percent government-owned, to win contracts to maintain, operate, and improve metro systems in Australia, Sweden, and the United Kingdom. Another increasingly important subsector is cybersecurity: recognizing this, the US Department of Homeland

---

34 Reference class forecasting Survey, Mckinsey and Company and Oxford University, 2012
Security is collaborating with universities including Carnegie Mellon University and the University of Maryland to train a pipeline of approximately 30,000 professionals in cybersecurity.

What this informs EAC-PS is that procurement of mega important and challenging projects should be country led with high level involvement of HEI and local private sector. This is critical in challenging the HEI institutions to rethink their human resource development strategies for the country, innovate more and have their programmes and curricula forward looking. No country can develop its skills and competencies in strategic areas, while depending on external contractors and investors to develop its economy. No wonder, in most of East Africa, engineers graduating from its universities end up as technologists, technicians and sales persons in the labour market.

**Sharpening Strategic and Risk-Management Skills**

HEI face large, intractable challenges with many dimensions, multiple stakeholders, and far-reaching ripple effects. Some are perennial issues, low research financing, whereas others may be external shocks. Regardless of the nature or origin of the challenge, such problems often affect—and require coordinated responses from—multiple parts of the Institution and stakeholders. HEI leaders must be equipped to anticipate, assess, and react to these complex the problems. That was the impetus for the Singapore government’s creation of the Centre for Strategic Futures, which “aims to develop insights into future trends and discontinuities, and cultivate capacity and instincts to manage strategic surprises.” In an increasingly complex and interconnected world, HEI will struggle to address the challenges of doing more with less if their employees are not armed with the right skills. A commitment to capability building will allow HEIs to be able to take a more dynamic and adaptable approach to reform. The IUCEA, has its job cut out for the next ten years to help the HEI on to the path of reform, growth and stability. Yes, it has started well with the harmonisation of the legal systems and structures, Quality Assurance, and Universities Standards and Guidelines. What is needed next is the infrastructure to enable each HEI to redefine its future in line with national goals and objectives, and regional expectations.

**Closer Collaboration with the Public, Private and Social Sectors**

Finally, the higher education sector must adapt to a changing ecosystem in which the biggest challenges cross the boundaries of the public, private, and social sectors. The need for HEI to collaborate with the public, business and social worlds exists whether higher education is acting as a consumer of products and services, a provider of human resources and innovations, or an economic stakeholder.

Universities have a wealth of information in education and research documents published and unpublished. Opening up education datasets EAC-PS should spur the creation of start-ups that use the
data to improve teacher quality, reduce infrastructure costs, optimize school locations, and in general help educators do more with less.

The national governments have an opportunity—perhaps even a mandate, in certain troubled sectors - to play the part of a “systems integrator” that takes a high-level view on an issue and figures out how all stakeholders should work together. One area in which government can assume an integrator role is in the definition and development of education-to-employment system. This should help to reduce unemployment. This study found out that the existing EAC modern sector of 114,520 establishments (including government and private sector) is only employing 5.9 million people, while the informal sector takes on 19.5 million out of a labour force of about 82.5 million, of whom 75% are young people, yet only 10 percent of employers in the modern sector report that they can find enough qualified entry-level candidates. Rwanda has adopted an integrator model through its Workforce Development Authority - a coalition of government agencies, private companies, trade associations, and labor unions - develops a rolling five-year projection of how much manpower is needed in specific geographies, sectors and skill areas, then identifies the best training provider to co-develop a curriculum with selected companies to meet those exact needs.

4.5 Conclusion

The convergence of the HEI, public, private, and social sectors means that higher education leaders will increasingly need to be “tri-sector athletes,” adept in operating at the intersections of these sectors, and ready to embrace new forms of organization and service delivery that are rooted in partnership, and targeted at growth.
V. Development and Implementation of National Qualifications Frameworks

5.1 Introducing National Qualifications Frameworks (NQFs)

As we indicated in section 1.2 of Chapter I, the creation of a qualification refers to the official development of a set of requirements for the awarding of qualification. Qualifications frameworks can therefore be seen as official ways of regulating and listing the available qualifications in a country/sector/region.

The EAC-PS historically had formal descriptions of their qualifications systems all the way from kindergarten to university. A review of documents and practices by country also reveal that they also have lists of occupations in different sectors of the economy, and in some cases these occupations are linked to various types of classification and regulatory systems. These systems reveal simple and rudimentary representations of the main pathways between qualifications in the country. Within the country these qualifications are understood and may not require interpretation. However, in cross-border relations, the qualifications require interpretation. This is where it is felt a NQF would provide the answers because in its design it makes explicit the levels of qualifications, therefore reducing the scope for differences of interpretation.

The qualifications framework brings a number of challenges and opportunities to the EAC Partner States. The matrix below summarises these findings.

<table>
<thead>
<tr>
<th>Challenges</th>
<th>Opportunities</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Rwanda is the only country with fully developed and implemented qualification framework in the region, Tanzania has developed one but it is yet to be published and rolled out to public for implementation. The rest of the countries are at different stages of development before they can finalize the process.</td>
<td>• The EAC Treaty has initiated the regional integration which started with Customs Union, Common Market Protocol, Monetary Union and ultimately the Political Federation. The development of regional higher education framework is coming after signing and operationalization of three of the major pillars of the Treaty (Customs Union, Common Market and Monetary Union), and succeeds the Mutual Recognition Agreements initiated as a safeguard measure with the implementation of the Common Market Protocol. The Partner States have gained experience in negotiations to reach agreement. It</td>
</tr>
<tr>
<td>• The Partner States have different Acts of parliament which govern the education framework in East Africa. The current qualification framework is backed by these Acts and will need to be harmonised in order to develop qualification framework.</td>
<td></td>
</tr>
</tbody>
</table>
The Partner States operate different educational systems in East Africa. Some are in 7.6.3 while others in 8.4.4 systems this makes it difficult for students from these systems fit when they require to transfer at mid-stream.

The language of instruction to students pose a challenge. While Tanzania has been instructing with Kiswahili at the lower levels, Kenya and Uganda are in English while Rwanda and Burundi have in French, Kirundi and Kinyarwanda.

The IUCEA has succeeded to develop regional quality assurance and benchmark for BBA subject. These form part of the qualification framework so some work has been done waiting to complete the rest.

The modernization initiatives which came through as a results of the introduction of ICT into the regional provides knowledge which will make it easy to develop the educational qualification framework.

The development of the qualification framework comes at the time when there is high demand for higher education. This demand is a driving force for mushrooming of both private and public universities which need to be regularized through qualification frame work.

Respondents to this study had their own understanding of a qualifications framework, and sometimes responses from the same country or institution differed, sometimes contradictory. Jomo Kenyatta University of Agriculture and Technology, Kenya has defined QF, in their context, with emphasis on the objectives referenced to the national position: "a set of qualifications designed by a Country to achieve certain objectives. For instance, the objectives of the Kenya Qualifications Framework as contained in the Kenya Qualifications Framework Act, 2012, are:

- Creating confidence in qualifications that contribute to national development obtained by recognizing qualifications and competencies obtained through formal, informal and prior learning;
- Developing a structure to support pathways that provide access to qualification that contribute to skills and competence development and life-long learning;
- Alignment of the Kenya Qualifications Framework with international qualifications to enhance national and international mobility of graduates and workers; and
- Strengthen national regulatory and quality assurance systems for education and training."

While, the Ministry of Education Science and Technology, Kenya sees QF as

"a schedule detailing all the qualifications awarded in academic, professional, technical and vocational institutions indicating the abilities that learners display upon successful completion of programmes, their equivalencies, the duration of training and awards given".

The NCHE Burundi, finds QF to be a
"body which has the mandate to verify the authenticity of the academic, vocational and technical qualifications granted to winners"

Rwanda on its part states that
"a qualifications framework is a tool that describes the main purposes and learning expectations for each qualification in a particular education system. It establishes the relationship between the different qualifications, and assists in comparing one's own standards with those in other education systems, whether for purposes of study or work elsewhere".

In this respect we could say that a NQF contains specific descriptions of different levels of learning. Each of these levels has designated qualifications. The most important and distinctive characteristic of a NQF, therefore, is the qualifications they contain. These qualifications should be viewed as being independent of the institutions that offered the programmes leading to their award. In simple terms this means that educational and training qualifications are seen as "national property" rather than being owned by the education and training institutions themselves. What this seems to suggest is that a QF contains agreed statements of levels, and if this has to be, then what Tuck has defined as NQF would suffice (Tuck, 2007):

A Qualifications Framework is an instrument for the development, classification and recognition of skills, knowledge and competencies along a continuum of agreed levels. It is a way of structuring existing and new qualifications, which are defined by learning outcomes, i.e. clear statements of what the learner must know or be able to do whether learned in a classroom, on-the-job, or less formally. The Qualifications Framework indicates the comparability of different qualifications and how one can progress from one level to another, within and across occupations or industrial sectors, and even across vocational and academic fields if the NQF is designed to include both vocational and academic qualifications in a single framework.

However, Tuck's definition is partially a statement of intention about what it is hoped an NQF will achieve, and also it is premised on the assumption that the public has implicit understandings of the relationships between qualifications.

The European Commission (European Commission, 2008) see a NQF as an instrument for the classification of qualifications according to a set of criteria for specified levels of learning achieved, which aims to integrate and coordinate national qualifications subsystems and improve the transparency, access, progression and quality of qualifications in relation to the labour market and civil
society. While the OECD (OECD, 2007) agrees with the EC it goes ahead to add that a qualifications framework should be recognized as an instrument for the development and classification of qualifications according to a set of criteria for levels of learning achieved. This set of criteria may be implicit in the qualifications descriptors themselves, or made explicit in the form of a set of level descriptors. The scope of frameworks may take in all learning achievement and pathways or may be confined to a particular sector, for example initial education, adult education and training or an occupational area. Some frameworks have a tighter structure than others; some may have a legal basis whereas others represent a consensus of social partners. All qualifications frameworks, however, establish a basis for improving the quality, accessibility, linkages and public or labour market recognition of qualifications within a country or internationally.

These definitions suggest that we can understand QF by learning what people hope qualifications frameworks should be and should do. For instance the Asia-Pacific Economic Cooperation (APEC)35 area makes suggestions about what qualifications frameworks can contribute if backed by a good system of quality assurance:

- They can support the development of workers’ skills;
- Facilitate educational and labour market mobility;
- Help improve the access of individuals to higher and different levels of education and training over their lives;
- Education and training providers and authorities are able to design more consistent and linked qualifications when descriptors of qualifications are developed within NQFs;
- Employers benefit in their recruitment and training of staff when they can understand and have confidence in qualifications; and
- The international recognition of an economy’s qualifications can be enhanced by the transparency of qualifications to which an NQF can contribute.

Another way of understanding NQFs is through comparing how they have been designed and implemented in different countries. Some have unfolded slowly as part of an overall reform processes, whereas others have been introduced in order to rapidly change existing systems. Some see educational institutions as the drivers and owners of the framework, while others see the framework as a way of reducing the influence of educational institutions over qualifications. Some introduce new organizations and systems, while others build on existing systems.

In the EAC region, the NQF are emerging as part of the education systems reform, including harmonisation. As reforms linked to education and training programmes, qualifications frameworks are

35 The APEC Human Resource Development Working Group, 2009
intended to affect curriculum and pedagogy. Understanding NQFs and designing, developing, and implementing them, involves understanding theoretical and empirical research in these areas. Theories and debates in political economy and economics also have considerable bearing on qualifications frameworks, as they are designed to change the relationship between governments and education and training systems, as well as between education and training systems and labour markets.

5.2 Qualifications Frameworks as Seen by EAC Leadership in Education and Industry

The EAC leadership in government, business and education seem to view QF as the quick remedy for the problems ailing the education sector. It is on this premise that both Rwanda and Tanzania thought that by implementing NQF there would be accelerated educational achievements. However, the benefits of QF can only be felt incrementally in medium to long-term and the implementation should be gradual, not wholesale. It must be understood that QF are a policy tool in the education reform process and can only work when the other tools in the reform tool kit are active.

At the EAC level, the Inter-University Council for East Africa considers QF a specific policy tool in the EAC education sector harmonisation process designed to raise skills levels, improve labour market productivity, and contribute to economic growth, through enhanced social mobility. Particularly, by implementing a well structured QA policy, the EAC and its Partner States should be able to realize:

- Social equity: education and training is a human right, but many people have been excluded from it, or not well served by current systems;
- Economic development: education and skills development are seen as major contributors to solving economic problems or, at the least, as something that governments have control over which could improve their economies, through, for example, attracting investment, increasing the quality and quantity of jobs, improving resilience to change in global markets.

Therefore, the QF as a reform instrument should do the following in order to contribute to social equity and economic development\(^\text{36}\) of the EAC:

<table>
<thead>
<tr>
<th>Education and Education System</th>
<th>• Integrate education and training</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Create parity of esteem for technical vocational education and training</td>
</tr>
</tbody>
</table>

\(^\text{36}\) Social equity and economic development are linked. People who have been disadvantaged by current education systems are the ones seen as in most need of a reformed system which will recognize the skills that they already have, give them an incentive to learn, and provide them with flexible opportunities to acquire the kind of education that will equip them for the labour market, as well as enabling them to continue to learn, and continue to be productive as labour markets change. Thus, it is hoped, social justice and improved economic performance will both be achieved, productivity will increase, and prosperity will increase, creating a virtuous cycle. The key driving force behind the current research is a desire to understand to what extent, and in what conditions, qualifications frameworks can achieve any of these aims.
<table>
<thead>
<tr>
<th>Qualifications</th>
<th>Make national qualifications systems easier to read and understand</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Show how different qualifications of Partner States relate to each other</td>
</tr>
<tr>
<td></td>
<td>Enable different types of qualifications to be compared through a common language of level</td>
</tr>
<tr>
<td></td>
<td>Avoid duplication and overlap of qualifications while making sure all learning needs are covered</td>
</tr>
<tr>
<td></td>
<td>Improve the transparency of qualifications and qualifications systems through the standardization of all qualifications and the use of explicit learning outcomes</td>
</tr>
</tbody>
</table>

| Social Mobility         | Create systems to recognize skills acquired through informal means; |
|                        | Create possibilities for credit accumulation and transfer—allowing credit towards degrees or certificates to be acquired over time, from different institutions, and by the accreditation of informal or experiential learning; |
|                        | Make it easier for learners to enter or re-enter education systems through more transparent certification, and promote lifelong learning by helping people to understand clear progression routes; |

| Regional Integration    | Improve labour mobility, including: |
|                        | Improving regional integration of economies by reducing barriers to worker mobility; |
|                        | Improving the ability of workers from Partner States to find jobs commensurate with their training and experience in other countries, thus increasing remittances sent home; |
|                        | Improving the ability of workplaces in Partner States to quickly understand the skills and abilities of migrant workers, thus more easily reducing labour shortages; |

| Private Sector Participation | Increase private sector involvement in education and training |
|                             | Increase the relevance and understood as alignment with the needs of the labour market, and flexibility of education and training programmes |

| Quality Assurance          | Provide a reference for quality assurance, thus contributing to improving quality and accountability, and promoting public and professional confidence in the integrity and relevance of national qualifications |
|                          | Help learners make informed decisions on the learning programmes and |
associated qualifications they want to pursue, by comparing the levels of different qualifications and identifying clear progression routes to their chosen career

5.3 Partner State Governments with NQFs

The current trends in QF trace their roots to an outcomes-based approach to qualifications and curriculum, which itself has been traced to occupational psychology in the United States in the 1960s, designed to measure teacher competence, based on political pressures as school education came under public scrutiny (Young, 2009; Spreen, 2001). Lessons learnt from this earlier exercise led to the development of learning outcomes for vocational education (Jessup, 1991). Using this experience, in 1984, Scotland formulated the 16+ Action Plan, which laid the basis for a series of reforms that led to the launch of the Scottish Credit and Qualifications framework in 2001 (Raffe, 2003; Young, 2003). In the rest of the United Kingdom in late 1987, influenced by some of the ideas espoused in the 16+ Action Plan, the National Council for Vocational Qualifications was created, to develop “a new system of qualifications that deliver the skills needed by industry” (Phillips, 1998, p. 64). Initially the NVQ framework was envisaged as including all existing vocational qualifications, but what emerged was a new set of outcomes-based qualifications alongside some existing qualifications and replacing others.

These two developments - the 16+ Action Plan in Scotland, and the NVQ framework across the UK—different as they were, are generally seen as the first generation NQF phenomenon that spurred establishment or the processes of creation of frameworks by the mid-1990s in Australia, England, New Zealand, Scotland, and South Africa, and today more than 100 countries around the world have established NQFs. The EAC initiatives are recent attempts having been initiated over seven years ago. The Table 14 below summarises the QF status of the EAC Partner State.

Table 14: EAC Partner States QF Status 2013

<table>
<thead>
<tr>
<th>Country</th>
<th>Comprehensive QF</th>
<th>NQF in TVET sector</th>
<th>Labour Competence Framework</th>
<th>NQFs in Higher Education</th>
<th>No NQF as Yet</th>
<th>Equivalent Frameworks in Basic Education</th>
<th>Relevant Legislation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burundi</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Kenya</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Rwanda</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Tanzania</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Uganda</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

1 The two countries - Kenya and Tanzania have draft Bills awaiting Parliamentary action

Source: Field Survey Results, December 2013-January 2014
It is clear from the table above that only Burundi may need assistance to kick-start the process of NQF development. Rwanda and Tanzania, on the other hand, have everything in place and should only be assisted to roll out.

5.4 Global Trends in Qualifications Frameworks

Regional QFs are being designed or implemented in different places around the world, influenced by and influencing the development of NQFs. Many of these frameworks are predated by conventions or declarations developed through UNESCO (the Lisbon convention and Bologna Process in Europe, the Arusha declaration in Africa), which aimed at ensuring that countries recognized qualifications and part qualifications within different regions.

The European Qualifications Framework (EQF) for Lifelong Learning was adopted by the European Parliament and Council in 2008. It is aimed at post-secondary education and training, and is described as a ‘translation instrument.’ This seems to mean that although it is called a ‘qualifications framework’, it will not be comprised of ‘qualifications’ per se, but will rather be the set of level descriptors which will be used to agree on common ‘levels’ for qualifications across Europe. The framework has already been influential, leading to most European countries adopting an NQF. The EQF has also been used beyond Europe in the development of NQFs, and is seen as the basis for regional frameworks internationally.

The implementation of EQF requires that the learning outcomes achieved by the learner in terms of knowledge, skills and other competences are described and are reflected in the diploma supplement as well. A uniform description of higher education systems at the national level in the various European countries is of great importance for transparency, comparability and mutual understanding at home and abroad for students, institutions and employers. In particular, such descriptions are essential for countries without a binary system to have good knowledge and understanding of the other Member States’ higher education system. To facilitate this process the European Union has put in place legislation establishing the European Qualifications Framework to help Member States, education institutions, employers and individuals compare qualifications across the EU’s diverse education and training systems. The legislation is also seen as an essential tool for developing a European employment market.

The Caribbean Community (CARICOM) qualifications framework has been developed for vocational education in the Caribbean. This framework is specifically focused on the adoption of competency-based education and training, which was endorsed by the Council for Human and Social Development
for vocational training in CARICOM member States since 2002. Adoption of this model included accepting a five-level framework of occupational standards already developed in the region; accepting a process of standards development; and accepting a specific process of training delivery and assessment for certification.

The Southern African Development Community (SADC) Integrated Council of Ministers approved the development of a Southern African Qualifications Framework in June 2005. The focus is on technical vocational education and training as well as promoting the development of qualifications frameworks in individual countries. It is intended to ensure effective comparability of qualifications and credits across borders in the SADC region, to facilitate mutual recognition of qualifications among member States, to harmonize qualifications wherever possible, and create acceptable regional standards where appropriate.

Under the Association of Southeast Asian Nations (ASEAN) Australia Development Cooperation Program, the Enhancing Skills Recognition Systems in the ASEAN project was designed to assist ASEAN countries to keep their skills recognition arrangements under review in order to meet emerging industry and employment needs across the region. A framework of occupational competencies at four levels of certificate has been developed, at the semi-skilled worker, skilled worker, tradesperson/equivalent and supervisor/equivalent levels. A regional qualifications framework has been proposed. The need for a qualifications framework is also being considered for nations within APEC (APEC, 2009).

The Pacific Islands countries are developing a unified register, Pacific Regional Qualifications Register, with the longer-term aim of expanding it to a qualifications framework. Parallel to this is the development of an inventory of technical vocational education and training programmes. The development of this register of qualifications by the South Pacific Board for Educational Assessment has been strongly supported by the following Pacific Islands countries: Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu and Vanuatu (Lythe, 2008, p. 56).

A transnational framework is being developed for small (population-wise) commonwealth countries. It is defined as a ‘translation instrument’, and includes higher education and post-secondary technical and vocational qualifications. Various members of the regional qualifications frameworks listed above would also be members of this framework.

5.5 Some Issues Raised in the Interviews
Education as a multifaceted system with its roots in the society’s political, socio-cultural and economic context has the cardinal responsibility of preparing the region’s required workforce with proficiency,
competences and expertise needed to bring about change and growth. Because of the association between education and the social and economic systems, some respondents had questions on the efficacy of QF, QA and outcomes-based to education management. For instance: what is involved in changing a qualification system which is closely linked to institution-based teaching and learning programmes to a qualification framework which typically expresses qualifications in terms of learning outcomes that are not tied to any specific learning processes or programmes? Can qualifications frameworks drive reform? Can learning outcomes or competency statements ensure that education and training systems meet the requirements of the economy? What is at stake in introducing an outcomes-based or competency-based qualifications framework? What might the losses and gains be? Can qualifications frameworks support changes in economies and education and training systems, and improve the linkages between the two?

Any education system of repute should evolve and grow in tandem with the dynamic needs and demands of the society, mindful of the factors of access, equity, quality, affordability and relevance to industry, culture and expectations of the community. In the knowledge-based global economy that the EAC aspire to, future prosperity and security as well as peace, social harmony and nurturing the environment will depend on people’s access and capacity to make choices, to adapt to rapid change and to find sustainable solutions to pressing challenges. Critical to this position and process is the quality and relevance of education and training at all levels and long-life learning professional courses designed to transform the youth into tomorrow’s human capital. Nonetheless, the quality of education and training has previously received a lot of considerations in the EAC Partner States with the establishment of the national assessment centres to monitor learning achievements, and quality assurance units at national levels and universities in order to ensure quality education.

As stakeholders look for closer links between the economy and education, qualifications take on a new significance. In reference to the 2013 Academia Private Sector Partnership Forum and Exhibition (Nairobi, Kenya), whereas participants at this meeting seemed to advocate for less government involvement, they also argued for national policies and institutions to ensure quality education and strong interactions between the academic and private sector. It is at this same meeting that the issue of whether QFs should be government led and private sector driven was raised. As a product of the political, socio-cultural and economic dynamics of the day education and education policy are increasingly shaped by economic objectives and business priorities.

As we had witnessed earlier, over the last two decades QA and QFs have emerged as part of the wider education sector reforms. Particularly, the NQF emerges as an instrument of public sector reform

---

37 Life-long learning is the essential organising principle for reaching quality education and for contributing to the advancement of teaching, research and innovation.
designed both to gain greater central control and to give greater choice to individuals. Qualifications offer an ideal instrument for a government to provide incentives to individual learners and make institutions more accountable. Together with QA, the QF can be seen as part of a new approach to management of education that emphasizes efficiency and effectiveness, using techniques appropriated from the employment and business sectors, and focused on outcomes. The construction of education policy internationally is dominated by several common themes:

- The need for change is cast largely in economic terms, as the enhancement of human resources;
- Education and training systems are increasingly described as failing;
- Changes in education and training are being required without a significant increase in resourcing from governments;
- Educational reform is promoted through changes in forms of governance;
- Education and training organizations are being required to work in more commercial and market-like ways; and
- Increased emphasis on standards, accountability and testing.

QFs seem to play a key role in this approach to reform, which seems targeted at productivity development and performance management in industry.

Over the last two decades, and especially with the deliberate effort by IUCEA, and in pursuit of the UN Millennium Development Goals, EAC Partner States have made substantial progress towards developing higher education systems responsive to national and regional needs, including benchmarking with current global trends, establishing lifelong learning systems, and in pursuit of quality learning opportunities for all, especially for marginalised and vulnerable groups who have least access to transformational education. Essentially, inclusion entails ensuring that every individual receives appropriate, good-quality education within and beyond the school system and across the boundaries. It is the full and effective exercise of the right to education that discriminates or excludes no individual or group within or outside the school system. It offers learners self-expression and the fulfilment that success and educational achievement bring. It covers issues of gender, ethnicity, class, social conditions, health and human rights. Inclusive education is about learning to live with diversity and learning to learn from differences, not only in a certain period but throughout the entire lifecycle, region and in a variety of contexts, this is the position advocated by the IUCEA in the harmonisation of the higher education systems in the EAC Partner States, and inherent in the call for a growing focus on qualifications. Related to this is the extent to which, in certain professions and trades and at certain levels, labour markets for key occupations have started to function more globally. At the same time,

---

18 Access to education and training plays a crucial role of enabling a country of region to define its priorities and aspirations. It is the means through which any nation determines the type of human resources that will facilitate social and economic development.
while trade in goods and services has globalized, international movement by individuals is in key respects more restrained than it was in the nineteenth century, and qualifications often part of the regulatory frameworks controlling such movements.

Recent decades have seen an increase in policy adaptation and sharing, and local policy makers use external interest and the availability of external support to elevate the priority of the particular objectives or programmes in which they are most interested. This means that the influence of external agencies has been substantially greater than the direct value of their relatively small contribution to overall education and training reforms in the Partner States. This is not unusual since:

- Countries seeking to introduce an educational reform often quote each other’s policy documents as a way of attempting to establish the credibility of the idea;
- Related to this is the work of international consultants and technical experts;\(^{39}\)
- In the past, the professional judgment of teachers and lecturers was seen as the basis of standards and the guarantor of progression. With more and more individuals obtaining higher levels of qualifications, there has been increasing emphasis on developing more explicit criteria, and more transparent ideas of what actual competences qualifying learners have.

Although some scholars (Coles, 2007, p. 7) have suggested that qualifications frameworks involve “defining levels through descriptors that are sometimes written on the basis of learning inputs and sometimes written on the basis of learning outcomes”, the main focus on qualifications frameworks is on learning outcomes. Additionally, 81.3% of the HEI indicated that this was even reflected in their curriculum. This shift to and emphasis on ‘outcomes’ is

- Widely embraced internationally, and represents a real change in how qualifications are thought about. This may relate to the fact that many QFs in the past have been created for technical vocational education. Over the last decade learning outcomes approach is starting to take hold in higher education as well as in school systems;
- An attempt to create qualifications which are not linked to specific learning programmes or institutions. Specifications for the award of qualifications are developed, which include statements of the outcomes which must be achieved in order for an individual to be awarded the qualification. Such qualifications, it is hoped, can then be awarded to anyone who can demonstrate the appropriate competencies, whether or not they have attended an educational institution.

\(^{39}\) Perhaps the most supportive aspect of the international NQF movement is the mutually respectful community of insiders and engaged practitioners who know the theory very well and have participated in the short but intensive history of implementation of NQFs, however varied this has been. In as much as it is possible in a world so full of higher-order abstractions, they speak the same language.
If this shift is implemented, it has important implications for ideas about knowledge and skills in education and training, as well as ideas about managing and delivering education and training. It is generally agreed, for example, by both supporters and critics of NQFs that they shift power away from educational institutions and towards other stakeholders, particularly employers. It is also argued that the radical nature of this shift is not always clear to those involved. However, advocates posit that learning outcomes:

- Approach can increase access to education by making entrance requirements more fair and transparent, and because individuals can be awarded certificates based on what they already know; and
- are linked to what are described as better pedagogical approaches, where the education providers are no longer the leaders and standards setters, and content is no longer the starting point.

Some respondents from HEI in Kenya argued that adopting the QF and the outcomes-based education would undermine the need for specific expertise in the selection and sequencing of knowledge and skills which are essential to curriculum design, and that in the absence of strong professional associations and strong educational institutions, it would lead to very varied standards, compromising the education system. Another sitting at Mwenge University in Tanzania heard the Professor of education at the Institute caution that NQF’s designed according to an outcomes-led or competency-based approach are built on flawed epistemological foundations, and that although they seem appealing, in practice they are based on misunderstandings about the nature of knowledge and skills and could increase the skills gaps, that we seek to eliminate through a QF.

### 5.7 Conclusion

The education system in the EAC is at a turning point - a point of major transformation into an internationally recognizable comparable education destination, which has the confidence and trust of the public, and contributes directly to meeting the needs of the business and employment sectors. However, this will largely depend on the political will, commitment and action of the governments of the five Partner States and how the higher education institutions embrace quality assurance and the qualifications framework in the design and delivery of their programmes.
VI. The NQF In the EAC Partner States

6.1 Introduction

Chapter VI above summarises the NQF status in the five EAC Partner States. This chapter discusses the various problems policy makers and stakeholders in the five Partner States hope to address through the introduction of qualifications frameworks, as well as the more specific goals they have for their frameworks. In some instances frameworks are only focused on technical and vocational training or on regular training or both of these sectors in what we call NQF.

Given the rapid expansion of HE in terms of Institutions and academic programmes there is a need to verify the comparability of academic awards from universities. There is a need to answer the following question: “do academic awards of a particular level have similar standards?” For more than two decades now EAC Partner States have navigated reforms to create and build confidence in the higher education system - The public want confirmation from the States that universities are offering quality education fit for the business and employment market. Confidence demanded by the public on HE drove HE regulatory bodies to work with individual HEIs to ensure that there were mechanisms of quality assurance in place, and the outcomes of the education system were comparable.

An East African Qualifications Framework for Higher Education (EAQFHE) is crucial for enhancing effective learning and addressing the skills gaps and skills shortages. Employers are seeking workforce with knowledge and skills which guarantee competitiveness in the industry. The decision on how this is done cannot be left to the academia, but a joint effort between the government, employers and businesses, and the academia.

6.2 Drivers of National Qualifications Frameworks

The study identified fourteen drivers of QF:

- Communication
- Transparency
- Relations between education and the labour market
- Credit accumulation and transfer
- Recognition of Prior Learning
- Access
- Quality Assurance systems
- Delivery of education and training
- Parity of Esteem for TVET
- Resources and Skills
- international recognition and labour mobility
- broader goals
- Goals for NQF
- International influence
6.2.1 Communication of Qualifications Systems

The main purpose of a QF is to promote harmony and understanding, and to try as much as possible to avoid second guessing, duplication and overlap of qualifications while making sure all learning needs are covered. This objective of NQFs is sometimes described as increasing or improving the transparency of qualifications systems. Transparency is made known through communication. Therefore, qualifications must (i) communicate, and (ii) be communicated to be understood and applied.

The EAC Partner States want the public and other stakeholders to have a clear understanding of qualifications. They want it to be clearer how different qualifications relate to each other. This issue emerged in nearly all the discussions, especially now with diverse education systems, rapidly expanding education infrastructure, growing education and training programmes, and growing population. With more than 3,000 HEI of which 344 are universities and other degree awarding institutions, there is need for clear certification pathways in order to promote clarity about the relative value of different qualifications, and to avoid confusion about qualification nomenclature\(^\text{40}\). In this kind of arrangement a single national qualifications framework provides a point of convergence, and a reference point, creating national coherence.

In some Partner States (especially Rwanda) creating a single accepted national grid of qualifications is one of the explicit goals of the NQF. In others (Uganda, Tanzania and Kenya), the introduction of an NQF is part of an attempt to regulate the use of nomenclature for qualifications, such as regulating what a term like ‘diploma’ is allowed to mean within the country, and whether or not it can be used in relation to qualifications at different levels. Uganda, Tanzania, and Kenya separate draft frameworks to TVET and higher education, and various other aspects of related labour market regulation. Experience has shown that at implementation, these documents which are designed to capture the various possible positions and levels in a wide range of sectors of the economy, will be cumbersome and incapable of realizing the envisaged objectives. A single NQF will enable a simplification of such frameworks, and play a coordinate role for other related education reforms.

As EAC Partner States, they are all agreed the specific focus now should be on the creation of a single structure for all higher education qualifications issued by public and private universities and colleges, because the rapid expansion of private provision has led to a multiplication of qualifications, and complex and contested accreditation procedures. The idea of a national framework is frequently linked to separating qualifications from institutions. One reason for this type of separation is the desire for

\(^{40}\) There is confusion on various certifications awarded by some institutions. For instance it was not clear exactly what ‘diploma’ meant, and what the relationship was between a Higher National Diploma and an Advanced Diploma, as these titles were designated by each individual institution.
individuals to be able to obtain a qualification without having to attend a learning programme at a specific institution; another is to create ‘national’ qualifications whose value is the same regardless of the institution attended.

6.2.2 Transparency of Individual Qualifications through Learning Outcomes

During the field survey we came across some documents with well stated learning outcomes. However, most of these are in individual departments where the public may not be well informed and privileged to access. A NQF as a statutory and obligatory instrument should bind all institutions and create access (transparency) to what HEI are teaching, training and qualifications developed. One can easily choose the programme of study with adequate comparative information. This can help to attract even more students from other parts of the region and world because a NQF acts as an indicator for relevance of competence to specific jobs provided in some enterprises worldwide. Employers may easily approach HEI for recruitment just after comparing the learning outcomes of programmes.

Improving the ‘transparency’ of individual qualifications is something most countries in the study emphasize. The perceived problem is that current qualifications do not provide sufficient information to employers or to education and training institutions about what the bearer of a qualification knows and can do. The hope is that when each qualification has clearly specified outcomes associated with it, qualifications will be more transparent. It must, however, be understood that learning outcomes do not start with the ultimate qualification but the process leading to that qualification - student admission, assessment, examination, award, and in between curriculum review and development, and course delivery mode. Each of these stages should be outcomes-driven, and to ensure this, stakeholders should participate in development of programmes, the benchmarking and in the monitoring and evaluation. This is when, the employers will decide whether the expected learning outcomes building capacity for learning beyond the specified course, and whether the learner is being empowered to make judgements about their own work and that of others, actively delving into realms of the work-environment.

6.2.3 The ‘Mismatch’ Between Education and the Labour Market

During the study visits the team noted the “mismatch” between education provided in the Universities and what the labour market demands. Employment and business sectors argued that universities were designing their study programmes following the academic progress of knowledge without adequately linking their programmes with country, regional and global labour demands. It was felt that this occurred because credentials tended to serve as simple selection devices rather than indicating exactly what skills potential recruits have obtained and because lack of useful information about the abilities of
qualification holders reduced the level of trust employers had in educational qualifications; this in turn, it was argued, led to employers demanding credentials far beyond those that were necessary for particular jobs.

The knowledge and skills developed in this manner are not necessarily satisfying the industry for the competitiveness, hence the complaint from employers about skills gap. The impact of the skills gap is far reaching and varied, with effects on global economics, human capital development, and business performance. In advanced economies, skill imbalances will lead to more long-term and permanent joblessness and a greater polarization of incomes between high- and low-skilled workers. In the EAC Partner State economies will likely slow their climb into higher value-added industries and see millions of low-skilled workers trapped in subsistence agriculture or urban poverty, as it is evident now.

Skills gaps can translate into slower growth, high on-the-job training costs, and lost productivity. They form a barrier to middle-income jobs, create an inability to compete and expand, and compromise industry’s ability to build a pipeline of workers. This indeed reflects the situation that the EAC Partner States are going through now. The study reveals that lower productivity and lower efficiency top the list of business impacts of the skills gap, followed by missed opportunities for the organization (Table 15).

Table 15: Impacts of having a skills gap

<table>
<thead>
<tr>
<th>Details</th>
<th>Impact Rank and Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Lower Productivity</td>
<td>77.0%</td>
</tr>
<tr>
<td>Slower time to the Market</td>
<td>16.0%</td>
</tr>
<tr>
<td>Less Profitability</td>
<td>10.0%</td>
</tr>
<tr>
<td>Challenges to Recruitment</td>
<td>17.0%</td>
</tr>
<tr>
<td>Less Efficient</td>
<td>42.0%</td>
</tr>
<tr>
<td>Unable to Expand or Grow</td>
<td>16.0%</td>
</tr>
<tr>
<td>Less New Product Development</td>
<td>4.0%</td>
</tr>
<tr>
<td>Harder to Compete</td>
<td>8.0%</td>
</tr>
<tr>
<td>Higher Expenses</td>
<td>7.0%</td>
</tr>
<tr>
<td>Missed Opportunities</td>
<td>31.0%</td>
</tr>
<tr>
<td>Other</td>
<td>9.0%</td>
</tr>
</tbody>
</table>

Source: Field Survey Results, December 2013-January 2014

A key aim of many of the QFs is to improve employers’ understandings of what qualifications mean. The QF should create a ‘meeting point’ between education and training and the workforce. It is hoped that the classification of qualifications based on learning outcomes will ensure that training institutions and
labour market role players ‘speak the same language’. Ensuring that employers trust qualifications, and know what it is that they are getting when they employ a person who holds a particular qualification, is an aim in many of the countries, and the issues are the same as those about transparency discussed above.

Prior to 1990s higher education qualifications had an indirect relationship with the labour market, and were seen as very broad stepping stones or levels of achievement. This has since changed with the structural adjustment programs and the resultant liberalization of the economy. This has even been made more complicated with increased levels of unemployment of higher education graduates as a result the dramatic expansion of higher education without changes in the labour market. Now policy makers believe there is a much stronger desire on the part of employers to know exactly what competences bearers of higher education qualifications have acquired. While historically qualifications have always provided this information to some extent, such as, that the bearer is qualified to be a nurse or plumber in a particular country, policy makers in most of the countries in the study hope to achieve far greater levels of specificity. This, it is believed, will assist employers in making employment decisions as well as in training and human resource planning. So, for example, in Burundi policy makers hope that outcomes/competencies will support management in companies and institutions to align human resources processes and systems, and be able to plan for entry into the labour market for most of its citizens.

NQFs are seen as a way of ensuring that employers are involved in qualifications design, thus ensuring that qualifications are of the right standard, this was arguably less of a focus in Rwanda. In all the five Partner States there is an explicit argument that ensuring that industry representatives drive the process of specifying learning outcomes, competencies, or occupational standards through a qualifications framework will ensure that qualifications are relevant and of high quality. TCU hopes that because employers ‘owned’ the new vocational qualifications, they would take responsibility for using them to assess their employees, and would use them in recruitment and placement of employees. In Burundi, it was hoped that by involving employers in setting labour competences, the abilities, attitudes, and knowledge required by people to be employed and contribute to the competitiveness of the companies would be identified. Policy makers in Uganda hope that the qualifications framework will promote the acquisition of certificates reflecting possession of knowledge and skills really needed in the labour market. In Rwanda, the stakeholders have set very specific indicators in this regard, including that students should need less time to find employment after graduation; that the type of employment found by students after graduation should be more compatible with their education and training; that there should be less time spent between jobs and more time employed in each job;

41 Rwanda has made attempts through manpower surveys and establishment of workforce development authority to construct a database on skills and qualifications gaps.
starting salaries for those assessed as competent should be higher than those without certificates; and employers should be happier with graduates from competence-based training programmes.

All the five Partner States, with the support of the IUCEA and the EAC, are making efforts to include employer in education and training, including setting up appropriate infrastructure to involve industry in setting standards. In addition, many countries describe their technical vocational education and training systems prior to the introduction of a qualifications framework as competency-based or based on occupational skills standards.

The Partner States are talking about implementing competence based system, yet none has come up with a competence-based and structures to ensure the involvement of industry in the technical vocational education and training system in prior reforms. Rwanda is confident that the reforms that have been carried out allow successful implementation of the NQF. It is argued that these reforms introduced some improvements but failed to make education and training or tertiary education more responsive to the labour market, or more efficient and effective, partly because they were reflective of the work and technological practices of the pre-independence, and were predominantly construction sector-oriented while other emerging and important industrial sectors were not accommodated. It is believed that the introduction of the Rwanda NQF, with the specification of visible and comparable outcomes, will now ensure both labour market responsiveness and efficiency and effectiveness.

Nonetheless, nearly all Partner States suggest that the lack of employer involvement is a key reason why qualifications do not meet employers’ needs. Why the existing systems have failed to ensure industry input is not always clear, although nearly all the case studies cite lack of willingness of industry to participate. Partner States seem to believe that the introduction of an NQF will enable them to succeed in involving industry, where in the past they have failed.

Stakeholders interviewed in the five Partner States, and content review suggest that curricula were irrelevant or outdated, not meeting learners’ or employers’ needs. In most countries the main emphasis was on the perception that educational provision did not meet the needs of the labour market:

- All employer representatives interviewed in the case studies reiterated the view expressed by policy makers, that many graduates lacked relevant skills, and that the quality of education and training is variable;
- 81.3% of respondents from higher education providers indicated that before programmes and curriculum are submitted to the Council/Commission [NCHE(B), CUE, HEC, TCU, and NCHE(U)] for approval they must pass through the University Senate, University Council and then the accreditation organs of the Council/Commission and responsible TVET agencies (NACTE or
VETA) and/or professional bodies. Meetings with stakeholders are held. Groups of qualified personnel met depending on the different departments they work or the program is affiliated to inform curriculum design. The curriculum outlines the objectives, rationale, admission requirements, course structure and duration, mode of study, credit transfer and examination procedures;

The HEI indentified students, guardians, staff, alumni, labour market, general public, the government, NGOs and other higher education institutions and confirmed their involvement in curriculum development for all programs and courses either or in all of the following ways (Table 16):

Table 16: Mode of Stakeholder Participation in Curriculum Review and Development

<table>
<thead>
<tr>
<th>Mode of Participation</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>They attend our consultation seminars and workshops where they make their opinions known</td>
<td>26.2</td>
</tr>
<tr>
<td>They participate in our market surveys, needs assessments</td>
<td>19.0</td>
</tr>
<tr>
<td>Employers through their collaboration and support, they receive our students for practice and give their feedback</td>
<td>21.4</td>
</tr>
<tr>
<td>Students are involved directly in curriculum development through student leaders (representatives)</td>
<td>50.0</td>
</tr>
<tr>
<td>Stakeholder through interviews to gather their opinion concerning the old curricula and what should be included in the new curricula.</td>
<td>40.5</td>
</tr>
<tr>
<td>They participate in our Tracer studies</td>
<td>18.8</td>
</tr>
<tr>
<td>We seek expert opinions from professional bodies and employers through questionnaires and workshop attendance.</td>
<td>38.1</td>
</tr>
</tbody>
</table>

Source: Field Survey Results, December 2013-January 2014

However, private rates of return HEI level qualifications are strong, and staff from universities, colleges, and training sectors said their graduates were readily employed, although they could not provide data to back up this argument. The reputation of providers, as well as linkages with industry at an institutional level, is said to be key in this process, and at higher levels, there is a strong preference for graduates from the mainstream public universities and overseas universities.

Consultations with key informants helped us arrive at the following conclusions that an innovative and effective program that ensures successful education-to-employment must have two features:

a) HEIs and employers must actively step into one another’s worlds so that employers help to design curricula and offer their employees as faculty, for example, while education providers have students spend half their time on a job site and secure them hiring guarantees, and

b) Employers and education providers work with their students early and intensely. Instead of three distinct intersections occurring in a linear sequence (enrollment leads to skills, which lead to a job), this should be a continuum in which employers commit to hire youth before they are enrolled in a program to build their skills.
The problem, then, is not that success is impossible or unknowable — it is that it is scattered and small scale compared with the need, because the relationships between education providers and employers is not structured, guided and controlled, it is seen as an afterthought, which is not part of the human resource development process. It should be and must stand out as part of the higher education curriculum delivery. Therefore to get this process to work successfully requires new incentives and structures. To increase the rate of success, the system must be facilitated to operate differently in three ways:

- The stakeholders (education providers and employers) need better data to make informed choices and manage performance. Parents and young people, for example, need data about career options and training pathways. Imagine what would happen if all educational institutions were as motivated to systematically gather and disseminate data regarding students after they graduated—job-placement rates and career trajectory five years out—as they are regarding students’ records before admissions. Young people would have a clear sense of what they could plausibly expect upon leaving a school or taking up a course of study, while education institutions would think more carefully about what they teach and how they connect their students to the job market;

- The most transformative solutions are those that involve multiple providers and employers working within a particular industry or function. These collaborations solve the skill gap at a sector level; by splitting costs among multiple stakeholders (educators, employers, and trainees), investment is reduced for everyone—an incentive for increased participation. Agreements such as non-poaching deals can also boost employers’ willingness to collaborate, even in a competitive environment; and

- Finally, the country needs system integrators (one or several) responsible for taking a high-level view of the entire heterogeneous and fragmented education-to-employment system. The role of the system integrator is to work with education providers and employers to develop skill solutions, gather data, and identify and disseminate positive examples. Such integrators can be defined by sector, region, or target population. Rwanda has come up with the Workforce Development Authority to manage this task.

The link between the labour market needs and an education program outcomes need to scale up, and to do this three challenges must be overcome:

- **Constraints on the resources of education providers**, such as finding qualified faculty and investing in expansion. In this instance coupling technology, the Internet and other low-cost outlets, and a highly standardized curriculum can help to supplement faculty and spread consistent instruction at a modest cost;
• **Insufficient opportunities to provide youth with hands-on learning.** In this case experience in the past, and what the informal sector has demonstrated is that apprenticeships traditionally have provided hands-on experience, but there are not enough spaces to meet demand. Technology, in the form of “serious games” and other kinds of simulations, can help here, too, by offering tailored, detailed, practical experience to large numbers at a comparatively low cost; and

• **The hesitancy of employers to invest in training unless it involves specialized skills.** Employers often are willing to invest only in those specialized skills whose value they can fully capture; they do not want to spend money on employees who might take their expertise elsewhere. But for providers, it is expensive to develop solutions for every employer. One proven approach is to combine customization and scale by offering a standard core curriculum complemented by employer-specific top-ups. We encourage employers to come and sponsor certain programmes they believe are of essence and add value to their operations.

### 6.2.4 Credit Accumulation and Transfer

Improving the transparency of qualifications is hoped to improve possibilities for credit accumulation and transfer. Many respondents were concerned about the lack of comparability of qualifications from different educational institutions, and hoped that NQFs would form the basis for developing systems of credit accumulation and transfer. Because the QF system is yet to become operational in the EAC region there is no basis on which to value qualifications from different providers. In this circumstances, this becomes an issue across private and public higher education institutions.

50% of the universities and degree awarding higher education institutions indicated that they had in place mechanisms for accumulation and transfer of credits. The Table 16 below summarises the results.

<table>
<thead>
<tr>
<th>Table 17: Mechanism for Accumulation and Transfer of Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Your Institution and Others %</td>
</tr>
<tr>
<td>None</td>
</tr>
<tr>
<td>Credits Earned</td>
</tr>
<tr>
<td>Exemption</td>
</tr>
<tr>
<td>Transcripts</td>
</tr>
<tr>
<td>Letters of Recommendation</td>
</tr>
<tr>
<td>Government Guidelines</td>
</tr>
</tbody>
</table>

Source: Field Survey Results, December 2013-January 2014

Qualifications in the EAC-PS are subject to four sets of demands: further education institutions (62.5%), employers (31.3%), the learners (65.6%) and instructors (3.1%). In addition the qualifications are at an operational level subject two demands - on the one hand, they are designed to meet industry needs,
and industry seems to be relatively unhappy with them\textsuperscript{42}, while on the other hand, they should have relationships with other qualifications. But this does is not operational, because of the there are no known benchmarks within the current context of qualifications. In the EAC there are also problems in the relationships between university and non-university higher education institutions. It is believed that there are unnecessary obstacles for people who want to move from technical vocational education and training to higher education. In fact creating progression pathways from technical vocational education and training to higher education is seen as a way of increasing the status of the former.

Increasing the transparency of qualifications is hoped to improve progression pathways within education and training - across different institutions and geographical areas, and across different sectors of the education and training system. The need to recognize already studied courses and programmes from other institutions of higher learning, provided they are accompanied with recorded credits, is becoming an important measure in East Africa Community. Indeed 71.9% of the HEI have indicated that the pattern and sequence of credit accumulation in program pathways is indicated in the curriculum, which is frequently shared with learners, while 15.6% are yet to integrate this in the curriculum to make the program more transparent; and 37.5% of the institutions facilitate flexibility in progression pathways. Regional integration brings mobility and publicity of existence of learning opportunities of choice in different places in the region.

Most higher education institutions in EAC belong to the Inter-University Council for East Africa. Although the Council has been effective in establishing QA it is yet to put in place mechanisms for operation of credit accumulation and transfer systems for students moving between programmes and/or institutions and across Partner States. A framework of national guidelines, the Higher Education Credit Framework for EAC, would be an addition to a well meaning QA. It may be possible for credit awarded in one framework to be recognised by education providers whose qualifications sit within a different framework. HE credit systems in use in Burundi, Kenya, Rwanda, Tanzania and Uganda are compatible within the EAC mutual recognition agreement, and therefore, should be able to meet requirements for accumulation and transfers within the EAC, even without elaborate regulations, in the same way they recognise learning gained by students in institutions elsewhere in Europe, the US, Asia, and other locations.

The existing credit accumulation system does not seem to recognize students leaving the programme before the scheduled completion period. Such students are treated as dissenters or failures and pulled of the progression register. Table 18 below summarises the current treatment of leaving students.

\textsuperscript{42} The weight given to further education and learners explains why there exists mismatches between education and industry, and why the industry is unhappy with the current qualifications system.
Table 18: Treatment of Students Leaving the Programme before the Mandatory Completion

<table>
<thead>
<tr>
<th>Details of Responses</th>
<th>Frequency %</th>
</tr>
</thead>
<tbody>
<tr>
<td>We do not have any obligation to them</td>
<td>31.3%</td>
</tr>
<tr>
<td>Discontinued</td>
<td>12.5%</td>
</tr>
<tr>
<td>Absconding</td>
<td>12.5%</td>
</tr>
<tr>
<td>Issued a result transcript and wished well</td>
<td>26.2%</td>
</tr>
<tr>
<td>Given Opportunity to Reapply</td>
<td>26.2%</td>
</tr>
<tr>
<td>Appropriate Diploma is Issued</td>
<td>31.3%</td>
</tr>
<tr>
<td>Student to Apply for Deferment</td>
<td>12.5%</td>
</tr>
<tr>
<td>It has never happened before</td>
<td>31.3%</td>
</tr>
<tr>
<td>Stagger their studies</td>
<td>12.5%</td>
</tr>
</tbody>
</table>

Source: Field Survey Results, December 2013-January 2014

The most common qualification for entry to higher education is the General Certificate of Education at ‘Advanced’ (A) level (Uganda and Tanzania) or Secondary level (Burundi, Kenya and Uganda). Other appropriate qualifications including higher education diploma may also provide entry to HE. Part-time and mature students may enter HE with these qualifications or alternatives with evidenced equivalent prior formal and/or experiential learning. Institutions will admit students whom they believe to have the potential to complete their programmes successfully.

6.2.5 Recognition of Prior Learning

The current trend of competence-based education welcomes the Recognition of Prior Learning (RPL) as entry qualifications in the level of competence building. Skills oriented programmes may qualify many to join the higher levels of study in case prior learning is legally recognized. In Tanzania RPL is only recognized at the admission stage by TCU, while in Kenya this is done through exemptions using standards provided by professional bodies such as the ICPAK, ACCA, and ERB. In some universities students also receive credit hours, practice hours and exercise hours. This also brings a challenge of defining (a) who is a student in the university or in higher education, and (b) what are credit practices or exercise hours, in an environment where benchmarks are yet to be defined.

University education or higher education is no longer a privilege for few intellectuals of the society, it is instead an open area of developing skills and knowledge for anyone who has foundational knowledge and skills learning required for further study. It is an opportunity to anybody who is trainable. This is true for those who have been practising some knowledge and skills and reached a determined level of competence that is comparable to that of the University level. QF open the doors of the different
pathways for acquisition of HE. RQF will create opportunity for those who were denied HE because of conservative school systems that allowed only the graduates of formal systems.

All Partner States would like to recognise competencies, knowledge, skills, and abilities that have been acquired outside formal education and training systems. This can only be done under a reformed system providing instruments for this. The Partner States are optimistic that qualifications frameworks will provide a basis for recognizing a wide range of learning achievements, whether in education and training or informally at work or in the community. They see the lack of such recognition as a problem, and thus:

- Contributing to the inefficiencies in education and training through forcing learners to complete courses unnecessarily; and
- Creating inefficiencies in the labour market because employers do not know what skills potential employees have.

These inefficiencies are the source of the serious wastages of skills within economies, as well as exacerbation of inequality. To avoid this some EAC countries are putting emphasis on the creation of new systems and mechanisms to recognize competencies (Burundi, Kenya and Uganda) whereas in others, there is more focus on trying to ensure that the systems which are used to recognize competencies on the basis of formal education and training are the same as those used to recognize competencies acquired in the workplace or in the course of life.

In addition, HEI are encouraged to re-examine their criteria for learner assessment for qualifications and certification so as to draw in those processes that embrace recognition of prior learning. The current assessment criteria is biased towards formal education with more than 84.4% of HEI favouring continuous assessment, 62.5% end point assessment, 84.4% written exams, and 62.5% oral exams and presentations.

### 6.2.6 Access to Higher Education Institutions

It is hoped that increasing the transparency of qualifications, thereby enabling the recognition of prior learning and creating credit transfer and accumulation mechanisms, will make it easier for learners to enter or re-enter education and training. It is in this regard that qualifications frameworks are seen as a key vehicle for increasing access, (i) through recognizing skills and knowledge acquired in the workplace and outside of education and training, and (ii) through removing what are seen as unnecessary legal or regulatory blockages between existing types of provision. This is seen as necessary to encourage or enable lifelong learning.
Participation rate in the university education varies from country to country. In some countries the accessibility of university education is limited because of poor secondary education performance hence students are forced to go to middle level tertiary Institutions. In some countries these students are condemned to remain without university education. Some countries just recognize established entry qualifications obtained from formal system only.

It is also true that university education is costly. The states are not able to support every qualified student to join the university. Difference of fee structures and other related costs may require other students to seek university education where it is affordable. With Regional Qualifications Framework economically disadvantaged students may access higher education in the neighbour countries. Hence Regional QF will promote accessibility of university education and exchange programmes.

RQF will enable this category learners to join University since a rationalized system of Higher Education under Qualifications Framework will follow competence built and specific skills acquired as entry qualification for the next level.

6.2.7 Quality Assurance Systems and Regulatory, Assessment and Certification Mechanisms.

All the five EAC-PS are implementing QA practices from basic education to higher education. Most of the practices are for pre-university programmes at primary, secondary and mid-level colleges. The matrix below shows the status in each Partner State.

<table>
<thead>
<tr>
<th>Country</th>
<th>Quality Assurance Body</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burundi</td>
<td>The Inspector General of Education (IGE)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>General Direction of Pedagogical Bureaux (DGBP)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>National Commission for Higher Education</td>
<td></td>
</tr>
<tr>
<td>Kenya</td>
<td>Directorate of Quality Assurance</td>
<td>Controlling the quality of education at the primary, secondary and teacher education levels. Also mandated to enter and inspect any school or any other part thereof</td>
</tr>
<tr>
<td></td>
<td>Teacher Advisory Centres (TACs)</td>
<td>Created at zonal level and manned by Centre Tutors are also engaged in ensuring quality</td>
</tr>
<tr>
<td></td>
<td>Directorate of Technical</td>
<td>Promotion of standards for technical education, and assurance of</td>
</tr>
<tr>
<td>East African Community</td>
<td>Accreditation and Quality Assurance</td>
<td>Quality implementation of curriculum. The directorate is also charged with facilitation of registration of TIVET institutions.</td>
</tr>
<tr>
<td>------------------------</td>
<td>------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>CUE</td>
<td>Quality assurance and control of post-primary and secondary education.</td>
</tr>
<tr>
<td>Rwanda</td>
<td>Inspectorate General of Education (IGE)</td>
<td>Designed a quality standard instrument (the Rwanda Education Quality Standards) to guide the management of education. This instrument has been published in the Official Gazette of the Republic of Rwanda as a Presidential Order early August 2009. Quality is also controlled internally in the schools by the head teachers, their deputies and teachers.</td>
</tr>
<tr>
<td>The National Curriculum Development Centre (NCDC)</td>
<td></td>
<td>Quality assurance and control of post-primary and secondary education.</td>
</tr>
<tr>
<td>Rwanda</td>
<td>National Examinations Council (RNEC)</td>
<td>Quality assurance and control of post-primary and secondary education.</td>
</tr>
<tr>
<td>Workforce Development Authority (WDA)</td>
<td>TVET</td>
<td>Quality assurance and regulation of higher education.</td>
</tr>
<tr>
<td>The National Curriculum Development Centre (NCDC)</td>
<td></td>
<td>Quality assurance and control of post-primary and secondary education.</td>
</tr>
<tr>
<td>Tanzania</td>
<td>Institute of Technology</td>
<td>Designing, testing, reviewing and/or revising the curricula for pre-primary, primary, secondary and teacher training,</td>
</tr>
<tr>
<td>Tanzania</td>
<td>Institute of Adult Education</td>
<td>Designing, testing, reviewing and/or revising the curricula for adult and non-formal education</td>
</tr>
<tr>
<td>Tanzania</td>
<td>National Examinations Council of Tanzania (NECTA).</td>
<td>Setting and administration of all National Examinations in Tanzania for Primary, Secondary and Teacher Education.</td>
</tr>
<tr>
<td>Tanzania Commission for Universities (TCU)</td>
<td></td>
<td>Quality assurance and control of post-primary and secondary education.</td>
</tr>
<tr>
<td>National Council for</td>
<td></td>
<td>Quality assurance and control of post-primary and secondary education.</td>
</tr>
<tr>
<td>Organization and Authority</td>
<td>Responsibilities</td>
<td></td>
</tr>
<tr>
<td>---------------------------</td>
<td>-----------------</td>
<td></td>
</tr>
<tr>
<td>Technical Education (NACTE), Vocational Education and Training Authority (VETA)</td>
<td>Quality assurance and control of post-primary and secondary education.</td>
<td></td>
</tr>
<tr>
<td>Zanzibar Vocational Training Authority (ZVTA)</td>
<td>Quality assurance and control of post-primary and secondary education.</td>
<td></td>
</tr>
<tr>
<td>Ministry of Education and Sports</td>
<td>Registration of all successful teachers and teacher educators (tutors and instructors).</td>
<td></td>
</tr>
<tr>
<td>Education Service Commission (ESC)</td>
<td>Ensuring effective and efficient recruitment, discipline and promotion of teachers as well as the development of teachers’ code of conduct.</td>
<td></td>
</tr>
<tr>
<td>The Directorate of Education Standards (DES)</td>
<td>To ensure quality, at national level, define, set, review and monitor standards in the sector and overseeing the implementation of the curricular ECD To post upper secondary institutions.</td>
<td></td>
</tr>
<tr>
<td>DISs/MISs</td>
<td>To ensure quality, at all local Government level, there are school inspectorate arms</td>
<td></td>
</tr>
<tr>
<td>DIT</td>
<td>For the BTVET Sub-sector</td>
<td></td>
</tr>
<tr>
<td>Uganda National Examinations Board (UNEB),</td>
<td>Conducting various public examinations and maintaining education standards,</td>
<td></td>
</tr>
<tr>
<td>National Curriculum Development Centre (NCDC)</td>
<td>Ensuring the development relevant curricula for several levels of education</td>
<td></td>
</tr>
<tr>
<td>National Council for Higher Education (NCHE)</td>
<td>Accreditation of programs of all tertiary institutions and universities.</td>
<td></td>
</tr>
<tr>
<td>Kyambogo University</td>
<td>Conducting, coordinating and supervision various examinations at PTCs, NTCs and Technical Teachers levels.</td>
<td></td>
</tr>
</tbody>
</table>

QA systems and regulatory, assessment and certification mechanisms require QF for ease of readability and comparability of qualifications. The value and worthiness of awards will be cleared through QF because it will clearly separate the qualifications from institutions by making them national and international. QFs are integral to quality assurance systems, and can be a point of reference external to education and training institutions that provide the basis for quality assurance, for both self assessment by individual institutions and evaluation by external agencies. This is essential in building confidence.
and trust in users of the system, and, where appropriate, provide the basis for government funding. For instance Rwanda sees QF as necessary to ensure a systematic approach in designing, providing, and awarding qualifications, which in turn is necessary for effective quality assurance. We see QF and QA linked through appropriate structured regulatory system and institutional arrangement, regulate and coordinate provision against specified standards. This is then linked to changing assessment, certification, and other regulatory mechanisms and systems.

- Qualifications frameworks are seen as part of creating markets in the delivery of education and training, as education providers are compelled to compete against each other increasing efficiency and quality.
- There are attempts to use the specification of standards to develop what are seen as more flexible assessment systems. Outcomes-based qualifications are seen as a mechanism to enable assessment to be site- and workplace-based,
- An emphasis on decentralized assessment is intended to ensure greater flexibility and convenience for applicants.
- The qualifications framework will enable the separation of assessment and provision - develop an accreditation system for institutions which conduct assessment.

Linked to reforming how education and training are delivered and regulated are attempts to streamline governance systems to remove overlapping responsibilities of different ministries and agencies for qualifications, and little coordination amongst them.

6.2.8 Delivery of Education and Training

HEI deliver study programmes as they deem appropriate mainly influenced by university traditions and other discretionary methods. Lecturers sometimes opt for methods that are not necessarily regulated by the academic department. The changes to assessment, certification, and regulatory mechanisms which are associated with NQFs are seen as part of reforming how education and training are delivered. Increasing the flexibility of education and training, and shifting to what is described as ‘demand-led’ systems are key to re-ordering the higher education system.

HEI are autonomous institutions, however, they are subject to the regulation and supervision of government authorities. The government through the appropriate authorities [NCHE (B), CUE, HEC, TCU, & NCHE (U)] are responsible for QA and ensuring that programme development, curriculum development and delivery are properly moderated. However, centrally-specified curricula, centralized state delivery mechanisms, and institution-linked qualifications prevent education and training from meeting the needs of the economy.
Apart from being autonomous, HE institutions are accused of being rigid and inflexible in relation to the management and delivery of education and training. This, the business and employment sectors associate with rigid and unreasonable entrance requirements, and inflexibility in terms of how courses are offered. Inflexibility may refer to access criteria or lack of responsiveness to short-term needs of industry or it may refer to the approaches of delivery of education and training which make it difficult for working people to attend. However, HEI have responded appropriately to these issues over the last two decades through diverse delivery menu of programmes and delivery modules for full-time and part-time, day and evening, and weekend students/learners.

6.2.9 Parity of Esteem for Technical Vocational Educational Training (TVET) and skills Qualifications.

NQF treats processes of learning as key component in HE where that learning is taking place. QF creates a bridge between technical, middle level and other HEI. There is a growing perception that TVET institutions are treated as inferior to universities. In all the five Partner States, to differing degrees, it was seen as a problem that technical vocational education and training (TVET), workplace-based or skills qualifications tend to have a lower status than school and university qualifications. NQF is required to create parity and esteem of all HEI since they are all engaged in developing similar and comparable competencies in the learners.

A clearer understanding of what the bearer of a qualification is competent to do will raise the status of qualifications, particularly of vocational and skills-based qualifications. This is in most cases based on a notion, sometimes implicit, that the public perceptions about qualifications are irrational, and due to prejudice, and therefore, can be changed through greater transparency. The low status of TVET is a concern in nearly all the Partner States, where it is seen as a fall-back option for learners for whom all other routes have been exhausted.

Partner States should attract students to TVET by placing vocational qualifications on a framework, thus demonstrating their equivalence to other, more desired qualifications. NQF will raise the status of TVET, by showing that the knowledge and skills are on equal terms with academic education. This, in turn, will help to get more motivated and skillful young people to choose TVET.

6.2.10 Resources for TVET and Skills Development.

The study findings indicated poor support for TVET and skills development in comparison with what the region invest in other HEI. It is the expectation of many that the current reforms to whip the TVET into mainstream HE would see them at par with other institutions in allocation of resources.
Partner Stats have cited systemic and protracted lack of funding for TVET as a key problem. They are now encouraging industry to invest in education and training at TVET level as much as they have done with university education. This, it is argued will supply industry with the most needed middle level skills to spur growth. In fact, TVETs are at the core of productivity development - producing the core staff responsible for productivity and performance improvement in industry - the technologists, technicians, artisans and craftsmen.

QF should help to redirect resources equitably to TVET to meet workforce development and training needs.

6.2.11 International Recognition and Labour Mobility

Globalization has created borderless provision of HE though national regulatory authorities maintain coordination, supervision and regulation. In the attempt to enhance the realm of EAC higher education qualifications frameworks may become part of the regulatory frameworks that increasingly control movements of individuals. QFs relate very well to international systems, and participate within globalized labour markets because QF has the capacity, the space and political will to indicate its equivalence to international qualifications where this was required. This is more so in those Partner States with high mobility rates (walk-in and work-out labour). However, it is also a strong rationale in Kenya, with its large number of diaspora workers sending remittances home. For Uganda it is the desire to earn foreign currency by attracting foreign students, who in most cases pay much higher fees than local students. International benchmarking is seen as an important part of this process.

In some EAC Partner States employment in modern sector (excluding the government) is mainly provided by the private sector which is heavily dominated by multinational organizations. Though locally operating they require competent workforce with International recognition. In fact in Tanzania and Burundi local workers say they are being edged out of multi-national jobs.

6.2.12 Broader Goals

Globalization and internationalization of HE demand harmonization of national higher education systems with the best world higher education practices. It is only possible to transform HE, apart from preparing competent and competitive workforce, into source of revenue through QF. Australia, England and South Africa are attracting international students who can pay fees because first they developed and are enforcing their NQFs. India is exporting IT experts because it invested in NQF for IT
programmes. Construction of a knowledge society and knowledge driven economy requires a robust HE system that is recognized for its uniqueness and excellence.

The EAC Partner States are keen on NQF because of its capacity to contribute increasing to raising education and training levels and strengthening international competitiveness, and enhancing lifelong learning; in addition to improving social cohesion at home, and assist people who have been marginalized to obtain qualifications or gain access to educational programmes. Also of concern is promoting access, and motivating learners to get more skills by certification.

The notion is that education and training systems are not producing the appropriate levels of skill in the workforce. This does not mean that the Partner States just plunge into a QF. This should be done after proper preparations starting with an analysis of skills shortages or what is generally referred to as manpower survey. In all the Partner States, TVET reform is seen as key to social and economic reform. Youth unemployment is a particular focus. Reforming TVET is linked with problems in school systems. For example low levels of throughput in schooling are seen as a major reason for improving TVET to provide an alternative progression pathway for young people.

The EAC region is set on building a ‘knowledge economy’, understood as the idea that economic value will increasingly come from knowledge-intensive work, and less from physical production. As observed elsewhere EAC Partner State governments want to encourage businesses and employers to invest in TVET education and training and by so doing shape the nature of industry and employment. But to do this they must first shape the type and level of skills acquired by the workforce or potential workforce.

The QF is seen as part of a cycle of creating better jobs, and ensuring that individuals have higher levels of skills for these jobs. The Partner States, are convinced that a QF

- Can facilitate this by improving the culture of training and raising standards of education and training;
- Will increase the productivity and competitiveness of industry through a flexible and globally employable workforce;
- Will increase their share of the global labour market through better-qualified workers
- Will enable greater alignment to national development goals.

An ambitious general goal of NQFs, but also one that is mentioned explicitly by all Partner States is the idea of promoting lifelong learning. For example, the Scottish Credit and Qualifications Framework aims “to help people of all ages and circumstances to access appropriate education and training over their lifetime to fulfill their personal, social and economic potential”. In some cases lifelong learning is simply specified as a general aim of the education system especially at the basic and tertiary levels.
6.3 National Qualifications Frameworks Designs

The NQFs come with their own designs, structures, institutions, systems whose architecture is selected to meet the needs of the country. The EAC Partner State NQFs are still in their rudimentary stage, apart from Rwanda and Tanzania. It is therefore not possible to learn from Burundi, Kenya and Uganda on the design, institutional arrangements and the actual frameworks.

6.3.1 Key Structures, Institutions and Systems

Rwanda has introduced the NQF through the Ministry of Education, Tanzania through the TCU. In Kenya the initial work to create the NQF was by the Ministry of Education Science and Technology, TVET section. In these three cases these are the institutions with authority for QF, they have existing institutional capacity, institutional memory, and hopefully, trust and credibility to shoulder this responsibility. The creation of new institutions is sometimes linked to attempts to shift control of qualifications away from educational institutions, but may also be linked to the fact that the existing state institutions do not have the capacity, or simply that new functions are being introduced. In all the three cases all stakeholders were not involved in the choice of where to anchor the NQF. Involving stakeholders and creating social dialogue is important in structuring NQFs, and new structures may be part of attempts to achieve these goals. As at now, none of the Partner States has established as independent QF Authority to design and/or implement and manage QF.

Qualifications Authority

The Rwanda NQF office handles higher education as well as technical vocational education and training but not the skills qualifications which is handled by the Workforce Development Authority. Quality assurance is handled by the HEC. According to the case study, it is staffed primarily by people with education expertise and interests, and is focused on the whole education sector. The qualifications are standards-based. For a skills qualification to be included in the overall register of qualifications attached to the NQF, it must be accredited through this system. In Tanzania, the University Qualification Framework (UQF) is anchored at TCU which is also responsible for quality assurance for higher education, and has some role with regard to the framework as a whole. The TVET QF is managed by NACTE whose powers are basically overseeing the development of outcomes-based vocational qualifications, and accrediting technical vocational education and training providers. The function of standards, testing and certification has been left to the national bureaus responsible for standards.
Presently the national HE regulatory agencies [NCHE (B), CUE, HEC, TCU, and NCHE (U)] are primarily regulatory and awarding bodies. They are responsible for accreditation, overseeing qualifications, curriculum, assessment and quality assurance in all degree awarding institutions. Probably to start with each of these institutions should constitute a Quality Committee which will be responsible for developing and maintaining Qualifications Framework guidelines, ensuring consistency in the process and criteria for admitting qualifications and learning to the framework, and aligning the NQF with other national and international frameworks. In fact in some countries - Kenya and Tanzania the mandate for creating and implementing the NQF is given to the HE regulatory authority by an Act of Parliament.

By not involving stakeholders outside the government and the academia, the element of ownership is reduced. So as a second measure and after-thought, a key focus in all of the Partner States has been the attempt to get industry on board and to lead the processes, as the point of this move is to create industry-specified standards which are not linked to specific educational institutions or curricula. At the regional level the IUCEA has set up a task team for this process, with much of the work contracted to consultants, and the stakeholders playing a ratifying role.

**Accreditation, Assessment, and Certification Arrangements**

The NQF is seen as part of improving the delivery of education and training through a greater emphasis on accreditation mechanisms and processes. In addition it is a tool to change regulatory functions and relationships with regard to quality assurance and assessment. This is often linked to proposed changes in assessment systems. For this to work as expected then the outcomes-based qualifications or competency standards will be a benchmark, against which institutions conducting assessment or providing education and training can be contracted and evaluated or quality assured.

The Kenya NQF is being created through a double accreditation mechanism. The proposed Vocational Qualifications Authority will conduct accreditation of institutions that want to teach, assess, or issue certificates. But institutions will also have to be accredited by the CUE, in order to qualify to award degrees. It is hoped that this ‘double’ filtering will increase quality and recognition of certificates.

Assessment as a function is being handled through the accreditation of institutions. Separating assessment from teaching and training through accreditation systems is a major focus of the NCHE (B), CUE, HEC, TCU, and NCHE (U). Nonetheless, there still appears to be centralized mechanisms for establishing test item banks, for the supervision of testing and certification activities, and for the development and update of test item banks. As a result the use of effective assessment criteria often

---

43 Ideally QF should be developed by a team of trainers and industry specialists who have undergone special training in the specified techniques and documentation systems.
seems to be a long way behind the use of learning outcomes and level descriptors. In some institutions the developments could be said to have gone too far, with religious describing of mechanistic criteria following every statement of every learning outcome. In other situations, however, in a module description form, the slot that requires some detail about the criteria often elicits information about the assessment method.

The current accreditation and quality assurance mechanisms need to be upscaled based on outcomes-based qualifications or competency standards. Presently these mechanisms are inputs-based and dependent on curricula and duration, qualification of staff, research outputs, and so on.

The issuing of certificates should be a key issue in relation to qualifications. In the five Partner States, certification currently happens through ministries, with separate systems for higher education and technical vocational education and training, and this is likely to continue. This, though, raises interesting questions about how NQFs are supposed to function, and the nature of change that they are intended to introduce.

6.3.2 Design Features

A Nationally Accepted Framework

The most basic aim of creating a qualifications framework is to have a nationally accepted framework or grid of levels and/or qualifications and qualification types, sometimes for all qualifications and sometimes for specific sectors. Differences in terminology and the configuration of education and training systems make classification of the scope of the frameworks difficult. The two design features which are seen as most central in NQF are level descriptors and learning outcomes.

Level Descriptors

Level descriptors constitute the crucial mechanism to achieve the claims made about qualifications frameworks. Level descriptors are seen as a guide for clarifying equivalence and rationalizing qualifications systems. They are also seen as a mechanism to increase transparency of qualifications systems, because they try to provide broad information about skills, abilities, and possession/mastery of knowledge areas, which should apply to all qualifications which are pegged at a specific level of a qualifications framework. They are also seen as the mechanism which will ensure that qualifications are broadly ‘comparable’, and that equivalent qualifications, which are currently not viewed as equivalent, will be recognized as such.
For example, in Rwanda level descriptors are seen as instruments to reference and compare qualifications, for the purposes of human resource management and development. In Tanzania, level descriptors will be an important mechanism to simplify the existing frameworks for occupations. Overall, they are seen as:

- A way of ensuring comparability of qualifications and providing for new transition routes from education and training to work.
- The basis for new systems of assessment;
- Meant to ensure that decisions are made based on clear criteria and not on prejudices.
- Meant to facilitate the recognition of prior learning because they indicate broad levels of competency, which, it is believed, can be measured or judged.
- Enablers of comparison of graduates from different programmes; and
- Guides to salary scales, since in the long-term the NQF will be related more directly to salaries.

For those countries which see an NQF as a way of designing new qualifications, level descriptors are seen as the starting point in terms of broad specifications of competencies, from which more specific qualifications can be designed. For those countries which want to organize and systematize existing qualifications, level descriptors are seen as the tool which will enable this to be done in a clear, consistent, and transparent manner. In other words, level descriptors are seen as the main mechanism that will create or improve transparency.

What then, do these descriptors look like? The existence of the European Qualifications Framework (EQF) as a powerful force in the world of qualifications frameworks may lead to level descriptors looking similar. Level descriptors are based on ‘knowledge, skill, and responsibility’, and are linked to very broad ‘classes’ of jobs. Many countries have a large number of domains or competence areas, and each of these then need to be defined for each level of the framework. A review of current literature on EAC Partner States’ attempts to develop descriptors led us to eight sets of domains/descriptors as in the Matrix 3 below.

As can be surmised from the Matrix 3 below, the development of level descriptors is an intricate, complex, and sometimes deep process. In the process of attempting to reach transparency, the tendency is to provide more and more detail. It is questionable in practice how many employers or educational institutions would have a clear understanding of what level descriptors mean if there are descriptors for each of ten domains, for each of ten levels of qualifications. If in practice levels are understood through the well-known or accepted qualifications placed on a specific level, it may be that implicit understandings of the known qualifications plays a bigger role than the descriptors in developing an understanding of what the level means. A more serious problem is that the descriptors
are seen to be the central mechanism for creating transparency, and it is hard to imagine how they can do so when they themselves are so complex.

Matrix 3: Emerging Sets of Level Descriptors of Learning Outcomes from the Interviews and Country Documents

<table>
<thead>
<tr>
<th>SET I</th>
<th>SET II</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Knowledge;</td>
<td>1. Scope of knowledge;</td>
</tr>
<tr>
<td>2. Practical skills;</td>
<td>2. Knowledge literacy;</td>
</tr>
<tr>
<td>3. Social skills and responsibilities;</td>
<td>3. Method and procedure;</td>
</tr>
<tr>
<td>4. Values, attitudes and professionalism;</td>
<td>4. Problem solving;</td>
</tr>
<tr>
<td>5. Communication, leadership and team skills;</td>
<td>5. Ethics and professional practice;</td>
</tr>
<tr>
<td>6. Problem solving and scientific skills;</td>
<td>6. Accessing, processing and managing information;</td>
</tr>
<tr>
<td>7. Information management and lifelong learning skills; and</td>
<td>7. Producing and communicating of information;</td>
</tr>
<tr>
<td>8. Managerial and entrepreneurial skills.</td>
<td>8. Context and systems;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SET III</th>
<th>SET IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Complexity,</td>
<td>1. Knowledge and understanding;</td>
</tr>
<tr>
<td>2. Autonomy,</td>
<td>2. Practice (applied knowledge and understanding);</td>
</tr>
<tr>
<td>3. Responsibility,</td>
<td>3. Generic cognitive skills;</td>
</tr>
<tr>
<td>4. Adaptability,</td>
<td>4. Communication, ICT and numeracy skills;</td>
</tr>
<tr>
<td>5. Knowledge, and</td>
<td>5. Autonomy, accountability and working with others.</td>
</tr>
<tr>
<td>6. Know-how and Behaviour.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SET V</th>
<th>SET VI</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Work with information,</td>
<td>1. Knowledge and understanding;</td>
</tr>
<tr>
<td>2. Reflection,</td>
<td>2. Applied knowledge and understanding;</td>
</tr>
<tr>
<td>3. Ability to learn,</td>
<td>3. Generic cognitive skills;</td>
</tr>
<tr>
<td>4. Business communication,</td>
<td>4. Autonomy, accountability and working with others</td>
</tr>
<tr>
<td>5. Responsibility,</td>
<td>5. Dynamism and adoptability</td>
</tr>
<tr>
<td>6. Motivation,</td>
<td>6. Non-routine and operational responsibility</td>
</tr>
<tr>
<td>7. Setting up goals,</td>
<td>7. Routine operations</td>
</tr>
<tr>
<td>8. Independence,</td>
<td></td>
</tr>
<tr>
<td>9. Ability to teach,</td>
<td></td>
</tr>
<tr>
<td>10. Breadth of views</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SET VII</th>
<th>SET VIII: IUCEA Draft</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Knowledge, Creativity and leadership</td>
<td>1. Knowledge at the most advanced frontiers of a discipline</td>
</tr>
<tr>
<td>2. High level management responsibility</td>
<td>2. Specialised problem solving skills</td>
</tr>
<tr>
<td>3. Management training</td>
<td>3. Originality and Creativity</td>
</tr>
<tr>
<td>4. Independent operative, supervisory responsibility</td>
<td>4. Generic cognitive and analytical skills</td>
</tr>
<tr>
<td>5. Requiring support</td>
<td>5. Adequate problem solving skills - ability to identify relevant issues, concepts, principles and theories</td>
</tr>
<tr>
<td></td>
<td>7. Leadership and supervisory abilities</td>
</tr>
<tr>
<td></td>
<td>8. Subject Proficiency</td>
</tr>
</tbody>
</table>
Outcomes, Standards, and Competences

All the frameworks in the Partner States involve learning outcomes or competences. The notion of learning outcomes or competences is central to the development of NQFs, and it is specifically linked to many of the claims that are made about NQFs. Learning outcomes are seen as the most important reform tool associated with the NQF.

The specification of learning outcomes or competencies is seen as a key tool for improving the communication function of qualifications systems and achieving greater transparency of qualifications. The idea is that the level descriptors provide broad descriptors of competency at a particular level, and the specific competency standards or outcomes-based qualifications or part qualifications, such as unit standards provide more specific competencies in specific fields or areas.

The Rwanda NQFs is designed based on the specification of learning outcomes separate from educational institutions or specific learning programmes and curricula, and for skills training. In Kenya this approach is used for a sub-framework of the national framework; in Uganda for technical vocational education and training only.

The present traditional qualification design displayed by HE institutions demonstrate features which are out-of-date and retrogressive. Functional analysis instead begins with the assumption that a statement of competent workplace performance can be identified and described by researchers in ways that are recognized by appropriate employers. It derives from such statements a set of individual elements of competence and their associated performance criteria. These elements of competence (they later became known as occupational standards) are then grouped together into units of competence which are assumed by policy makers to make sense to, and be valued by employers and hence warrant separate accreditation. Each NVQ was made up of a number of related ‘units of competence’. This approach, developed first through the English NVQs, is described as the basis of many of the NQFs operational today.

Countries which adopt this approach to learning outcomes in their NQF (the frameworks in all the five Partner States do) tend to see the specification of learning outcomes or competencies as a central and key mechanism for achieving the aims of the NQF. It is believed that learning outcomes will ensure transparency as well as making standards clear, and providing a clear basis for quality assurance and accountability. However, when including higher education, this approach is not adequate in the development of the QF.
We can also consider frameworks as primarily grids of level descriptors on which existing qualifications can be organized, and through which existing qualifications can be understood, but also hope that the frameworks can provide the base for the development of new qualifications, in the sense that sets of qualification specifications will be developed, for which educational institutions can develop learning programmes, or against which assessment and certification bodies can assess and certify. Here the idea seems to be that systems will be created to set standards or outcome statements which will comprise the official qualification requirements, and training providers will then be able to develop training programmes against them.

Comparing Qualifications Levels

To find out how the qualifications compare across the region, we looked at the level, size and content of the qualifications or level of difficulty. However, we must appreciate at this state that none of the five EAC-PS can be said to have enforced its QF.

Each qualification has a level between entry level and level 10. Qualifications at the same level carry a similar level of demand or difficulty. The content and size of qualifications at the same level may be quite different. Based on the survey findings most (53.1%) of the HEI use units. Each unit has a credit value which tells how many credits are awarded when a unit is completed. The credit value also gives an indication of how long it will normally take one to prepare for a unit or qualification. If the HEI were already employing the principles of a QF, the units would provide flexible ways to get a qualification. Each unit has Units build up to qualifications. There are three different types of qualification in the qualifications and credit framework: Award, Certificate and Diploma with the Award taking 1 to 12 credits; a Certificate 13 – 36 credits and a Diploma at least 37 credits.

A credit represents 10 hours of learning. The size of other qualifications is indicated by the number of guided learning hours typically needed to complete a qualification. Units and qualifications are each given a level according to their difficulty, from entry level to level10. The title of a qualification will tell its size and level.

6.3.3 Monitoring and Evaluation Systems

Ensuring that this is the case requires the right measurement of the right data. However, the EAC Partner States' QF being in their initial stages not much has been done in form of evaluative data. Again, very little information is available on monitoring and evaluation systems with regard to the aims and objectives of their NQFs.
Some respondents indicated that there were indicators which had been developed for separate institutions and parts of the qualifications systems. However, no evidence of this could be provided, but it is enough to know that they are aware of what is expected.

6.4 Impact of National Qualifications Framework

As indicated throughout this study QF in the EAC Partner States is still in its rudimentary stage, it is therefore difficult to extract any impact data of and on its achievements, recorded or unrecorded. In most cases, for instance in Uganda, Kenya and Tanzania, it is even too early to say whether or not the qualifications framework would achieve its goals. Nonetheless, some analysis of impact can be made in relation to Rwanda.

Of all the EAC Partner States' cases, Rwanda is the only one to have attempted a formal implementation. However, it has not prepared any impact study, although there are some monitoring and evaluation strategies for some aspects of the NQFs. Authorities in the country did not have clear indicators at the start, or conduct baseline studies against which evaluations could be conducted. However, its implementation was pegged on the Rwanda Economic Development and Poverty Reduction Strategy 2013-2018: Shaping our Development. The Rwanda NQF is designed to guarantee the attainment of competences at different levels and to facilitate different exits with recognized awards after completion of specific level(s). The NQF facilitates maximum utilization of the available skills as developed at different levels of higher education system. From the outset it:

- Promotes lifelong learning as someone may stop at certain level and later continue with the subsequent level. Exit pathways are possible within QF and allows the student to make use of the skills developed to join another programme of study where comparability of competences is recognized.
- Enhances credibility of Rwanda Higher Education and sets benchmarks for all institutions operating in Rwanda.
- Provides mechanisms for measurement of academic awards offered by the HEI
- Creates qualifications to ensure that education and training provision is matched to the Rwanda economic and labour market needs for a skilled and educated workforce.
- Enables students to reach their full potential by signposting progression routes from the certificate in the higher education to the doctorate.

The implementation of the QF is supported by a Code of Practice. The compliance is obligatory and Council for Higher Education (CHE) is charged with responsibility of monitoring the compliance. It is expected all institutions will develop modular programmes of study. The failure to adhere to the QF may lead to the closure of the study programmes offered by any institution or the Institution itself.
There are few, if any, places in which successes and failures of the framework have been brought together in a clear and accessible format for practitioners and policy makers in the country to learn from. Clearly, in any policy implementation, impact evaluation is complex. NQFs, as discussed above, aim to change education and training systems in a whole range of different ways, in order to achieve desired effects. It may be difficult to measure an NQF’s impact on the performance of an education and training system since the concepts and categories used to measure performance may be changed by the NQF itself. What constitutes success is also contested.

6.5 Conclusions

The EAC Partner States have done much in recent years to open their doors to higher education reforms. It is commendable that these efforts have narrowed the gap between education and employment. Nonetheless, the gap remains far too wide. Within the sector there is broad agreement that more progress needs to be made. The climate for doing so is inauspicious. Constraints on public funding and industry participation, if progress is to be made, the EAC Partner States will need to embrace QA and QF. The sector as a whole should set out a clear thirty-five-year plan – underpinned by better data and explicit targets – for doing so, to transform the higher education system.
VII. Potential for a Regional Qualifications Framework

7.1 The Direction

The direction the EAC Partner States should take forthwith, and the values that the Bologna process introduced in the European education and human resource development, was decided at the Arusha Declaration of 1967. At the Arusha Conference Mwalimu Julius Kabarage Nyerere analyzed four basic features of the Tanzanian education system existing in 1967. He was particularly concerned about how it discouraged the integration of pupils into society as a whole and promoted attitudes of inequality, intellectual arrogance, and individualism among those who entered the school system. He observed that:

1. Formal education is basically elitist in nature, catering to the needs and interests of the very small proportion of those who manage to enter the hierarchical pyramid of formal schooling: ‘we have not until now questioned the basic system of education which we took over at the time of Independence. We have never done that because we have never thought about education except in terms of obtaining teachers, engineers, administrators, etc. Individually and collectively we have in practice thought of education as training for the skills required to earn high salaries in the modern sector of our economy’ (Nyerere, 1968b, p. 267).

2. The education system divorces its participants from the society for which they are supposed to be trained.

3. The system breeds the notion that education is synonymous with formal schooling, and people are judged and employed on the basis of their ability to pass examinations and acquire paper qualifications.

4. The system does not involve its students in productive work. Such a situation deprives society of their much-needed contribution to the increase in national economic output and also breeds among the students contempt for manual work.

Given the realities of a poor, underdeveloped, and agricultural economy and the cherished goals of socialist transformation, Nyerere proposed an alternative educational model designed to reorient the goals, values, and structure of education. According to this model education must:

- Serve the common good and foster the social goals of living together and working together.
- Help in the development of a society in which all members share its resources fairly equally
- Inculcate a sense of commitment to society.

In addition to the inculcation of social values, education
[...] must also prepare young people for the work they will be called upon to do in the society which exists in Tanzania, a rural society where improvement will depend largely upon the efforts of the people in agriculture and in village development. This does not mean that education in Tanzania should be designed just to produce passive agricultural workers of different levels of skill who simply carry out plans or directions received from above. It must produce good farmers; it has also to prepare people for their responsibilities as free workers and citizens in a free and democratic society, albeit a largely rural society. They have to be able to think for themselves, to make judgements on all issues affecting them; they have to be able to interpret the decisions made through the democratic institutions of our society, and to implement them in the light of the local circumstances peculiar to where they happen to live. It would thus be gross misinterpretation of our needs to suggest that the educational system should be designed to produce robots, who work hard but never question what the leaders in government or TANU are doing and saying. [...] The education provided must therefore encourage the development in each citizen of three things: an enquiring mind; an ability to learn from what others do, rejecting or adapting it to his own needs; and a basic confidence in his own position as a free and equal member of the society, who values others and is valued by them for what he does and not for what he obtains (Nyerere, 1968b, p. 274).

The major purpose of the education system should be to prepare people for a meaningful and productive life, and for service where they live and contribute to livelihoods. It should be about inculcating competences. And for this Nyerere said:

We should not determine the type of things children are taught in primary schools by the things a doctor, engineer, teacher, economist, or administrator needs to know. Most of our pupils will never be any of these things. We should determine the type of things taught in the primary schools by the things which the boy or girl ought to know, that is, the skills he ought to acquire and the values he ought to cherish if he, or she, is to live happily and well in a socialist and predominantly rural society, and contribute to the improvement of life there. Our sights must be on the majority, it is they we must be aiming at in determining the curriculum and syllabus. Those most suitable for further education will still become obvious and they will not suffer. For the purpose is not to provide an inferior education to that given at present. The purpose is to provide a different education, one realistically designed to fulfil the common purpose of education in the particular society of Tanzania. The same must
be true at post-primary schools (Nyerere, 1968b, p. 282).

The Arusha Declaration brings forth three important things which education must focus on if it has to be transformative, productivity driven and performance based: (i) life-long learning, (ii) focus on skills and traits in nurturing competence, and (iii) outcomes-based. And this brings forth the concern of the citizens of the EAC Partner States - improving the relationships between education and training systems on the one hand, and labour markets on the other to stem the perennial problem of unemployment as a result of skills mismatches. Consequently, the economic future of many individuals, and of each Partner State, is at risk unless something is done to bring skill development efforts up to world-class standards of performance. This will require that EAC leaders come up with more comprehensive, large-scale, and systemic approaches to skills development. This calls for a number of things, which also point to the direction that the leaders must take:

a) Growing Demand to Align Labor Supply and Demand: This demand can be addressed on two fronts:

(i) On the demand side, it is important that education and training programs prepare people for jobs that are actually available and equip them with the particular skills that those jobs require, prompting more in-depth analysis of labor market demand. The focus of this kind of demand-side analysis is becoming more regional in scope, drawing on numerous data sets to provide a more comprehensive picture of what’s actually happening in the labor market. And the tools for performing this analysis are getting increasingly sophisticated, allowing for more in-depth understanding of labor market patterns and trends, more real time data on job vacancies, as well as more accurate projections of labor market demand, demand regular manpower survey studies.

(ii) On the supply side, the focus should go beyond individual programs to assess the quantity and quality of those completing a wide range of education and training programs, as well as those in the pipeline. The output from the supply-side analysis should be compared to demand-side information. This should allow leaders to identify where education and training investments are aligned or misaligned, and where regional efforts can make the biggest difference. This kind of information would also help individuals to make better-informed choices about training and careers.

b) Skills Development Efforts Should Focus on Targeted Industries: This calls for a shift toward organizing skill-development efforts along industry lines, through industry partnerships or sector strategies, guided by an analysis of which industries are key to growing the economy. The focus should be on meeting the needs of a whole sector of the local labor market, and using that focus and the support of businesses in that sector to drive greater alignment among the various actors in
the skill-development system. The implication of this is that it will pave the way for skill-development programs to have a bigger impact, to get better information about job openings and skill requirements, and to get more employers engaged in skill development. To be successful industry partnerships must be established to create new employment opportunities for low-income residents while meeting the workforce needs of participating employers. Primarily from healthcare, manufacturing, construction and energy-related sectors.

c) **Employ the Concept of Community Colleges in Skills Development Efforts**: Currently East Africa higher education system does not have a category of higher education institutions called "Community Colleges". With growing skills gaps, unemployment as a result of retrenchment and displacement, the importance of community colleges cannot be ignored in reorienting and:

- retraining efforts for the workers retrenched from public or private services;
- retraining of internally displaced persons;
- providing customized training for private employers, utilizing the resources of multiple colleges;
- providing hands-on instructions and workforce development to youth and women, and displaced workers to move from training to degree to work in areas that are in demand and central to the livelihoods of the people - agriculture, artisan processing and manufacturing, health care, and alternative energy;
- partnering with employers to prepare job candidates for new careers in high-wage, high-skill fields; and
- Working closely with economic developers and businesses to ensure that their curricula and training programs align and support the needs of companies in the region’s targeted clusters.

Different colleges could take the lead in different industries, based on their location, including becoming part of a state-wide network of small business support centers that help entrepreneurs start new businesses and help small businesses grow.

Community colleges have diverse ways to align and deliver workforce, technical, two-year, and four-year postsecondary education to meet economic development and worker needs. Because of their flexibility they are at ease with partnerships with industry.

d) **Develop New Structures to Coordinate Skills Development Efforts**: These new structures should make it possible to keep multiple stakeholders at the table, get good data, use that data as a transformative agent, and develop more meaningful partnerships with the private sector, and should be closely linked to regional economic growth strategies and partnerships.
A regional collaboration among businesses, higher education institutions, service providers, community organizations, economic and workforce development agencies, and community leaders should provide the EAC with a strategy and a vehicle for increasing skills and “pipeline” talent through expanded internship and mentoring programs, dual enrollment and cooperative education programs, job shadowing and career exploration programs, and skill development initiatives in targeted and/or strategic industry clusters.

e) Help Students and Workers Make Better Career Choices: A final development should involve deliberate efforts for more systematic ways of distributing reliable information about where the jobs are (or going to be) and what skills they require to help students and workers make informed choices that are both good for the economy and their earning potential. This could be done in either or all of the following ways:

- Introduction of career coaches or “navigators” in community colleges and the public workforce system. It is important to note that this approach is very labor intensive and, therefore, difficult to deploy on a large scale.
- Make information available through websites, and organized into career pathways to help individuals figure out how to move to higher levels of education and employment in a given industry or occupational sector on their own.
- Make information available in schools, since research suggests that high school is a critical period for making career decisions.

This will involve gathering and making much more widely available labor market intelligence about where the jobs are, what skills they require, what credentials are most relevant to in-demand occupations, and where the necessary education and training can be found. It will also involve articulating career ladders and career matrices that allow students and workers to identify other occupations and careers that they might be able to pursue, leveraging their existing skills and experience, or by acquiring new skills. Finally, it will call for making the skill development system much more transparent so that individuals can identify where to go to get the assistance they need.

The proposals of the Arusha Declaration and what they mean in today’s ‘education to employment’ call for a different kind of skill development system than the EAC Partner States have relied on in the past. The Partner States can no longer

- rely on a patchwork collection of disconnected programs with limited scope and duration that are difficult to scale up to a level sufficient to have a major impact;
- be content with research that documents the success of isolated programs, but provides no guidance on how to make a lasting impact on a meaningful scale;
• be satisfied that the system is demand-driven if it is only meeting the needs of a handful of employers that have been recruited to participate in a particular program, rather than the labor market as a whole; and
• Define success solely in terms of helping a few disadvantaged individuals get a foothold in the labor market, rather than equipping a broad population of the workforce with world-class skills.

To take things to the next level, the Partner States need to set the bar much higher, expand the boundaries of their efforts to include a broader population of the workforce, work across program boundaries to take more comprehensive approaches, work across jurisdictional boundaries to take more regional approaches, and be much more strategic in their efforts, investing available resources where they can make the biggest difference, directly supporting the creation of new jobs in ways that expand economic opportunity for all of the region’s citizens.

7.2 The EAC Higher Education Institutions

Among the policy priorities of the IUCEA, the EAC Institution mandated to coordinate the development of higher education and research in the Community and to develop systems for harmonisation of higher education, are reforming higher education and training systems, raising skills and competence levels, and improving and internationalizing qualifications systems. The development of HE in the EAC Partner States is based on a set of core values: equity and access; research and scholarship in all disciplines as an integral part of higher education; high academic quality; cultural and linguistic diversity. Therefore universities must continue to foster the highest level of quality, governance and leadership.

HEIs are central to the development of the East African society. They create, safeguard and transmit knowledge vital for social and economic welfare, locally, regionally and globally. They cultivate East African values and culture. They advocate an East African of knowledge based on a strong research capacity and research based education in higher education institutions, singly and in partnership, across the region. To HEI cultural and linguistic diversity enhances teaching and research.

Students are key partners within the academic community. The EAC education reforms are designed to facilitate the introduction of flexible and individualised learning paths for all students; improve the employability of graduates and make EAC institutions attractive to students from other parts of the world. European universities are active on a global scale, contributing to innovation and sustainable economic development. Competitiveness and excellence must be balanced with social cohesion and access. The EAC reforms will only be successful if universities address both the challenge of global competition and the importance of fostering a stronger civic society across.
7.3 Technological Advances and Global Competition

Technological advances and global competition require a knowledgeable, skilled and adaptable workforce. Economic survival depends on continuous training, lifelong learning, and technology skills.

**Bigger and Better Data:** Partner States should use new technologies to paint a comprehensive picture of what’s happening in the labor market, then supplement this information with employers’ surveys or robust business retention and expansion programs to gather more detailed information about where the jobs are or are likely to be. Partner States should also be able to track enrollment in education and training programs to identify potential mismatches between supply and demand, and follow-up on what happens to program participants upon completion to assess the quality of those programs. This more timely and reliable labor market intelligence should be used to drive decisions about where to focus education and training investments and to track whether those investments are making a difference.

**More Integrated and Streamlined System:** This involves mapping out the whole skill development system, starting with an analysis of where the jobs are in the local economy and what skills they require, setting up partnerships with employers in key industries to provide short-term training that meets immediate industry needs, then working back through work readiness and pre-employment training programs that feed into that system, creating, in essence, a “talent supply chain” to support job growth in key industries. This more systematic approach to skill development creates clearer pathways for students and low-skilled workers to pursue education and training that ultimately leads to employment in demand occupations, taming the current and growing situation of skills-mismatch and unemployment.

7.4 The Aim of a EAC Qualifications Framework for Higher Education

The aim of the EAC Qualifications Framework for Higher Education (EAQFHE) in the EAC is to use generic descriptors to describe learning outcomes per level in terms of knowledge, skills and competences and thus to increase understanding at home and abroad. To safeguard the quality and understanding of the EAC higher education system abroad, it is important that it compares with other countries using predetermined and agreed descriptors as a common frame of reference. In this way, we can develop and keep higher education qualifications system up to date in respect of it neighbouring, competitor countries.

In fact, the aim is twofold:
a. Offer a clear overview of the level of the qualifications, with a particular focus on transfer, intake and lateral entry, and of the meaning of the qualifications for the EAC residents, including the labour market. The target group in this respect is broad and includes all the HE stakeholders (business, employers, students, parents or guardians, academic staff, higher education institutions, and various authorities and sections thereof;
b. Show how EAC HE qualifications are compatible with the overarching framework for the higher education world-wide so that EAC qualifications can be properly understood internationally.

7.5 Added Value and Significance of the Higher Education Qualifications

The goal of a NQF for Higher Education is to use the generic EAC descriptors to describe per level the learning outcomes in terms of knowledge, skills and competences in order to increase understanding of our higher education system at home and abroad. To safeguard the quality and understanding of our higher education system abroad, it is important that each EAC-PS can compare itself with other countries using the descriptors as a common frame of reference. Therefore, in the design of the EAC QF it is crucial to make the system transparent and clear to foreign institutions, students and employers. EAC needs to be able to estimate the value of Partner States HE programmes and students. And students need to know what their level is and at what level they can follow a suitable further education programme. In addition, the EAC HE institutions should be able to send inbound and outbound students on their way with the correct information and papers.

7.6 The Need for a Regional Credit System

The mobility of students, teachers, and researchers is one of the important thrusts in the internationalization of higher education. The promotion of internationalization in general and of international mobility of students in particular, is regarded as important elements of higher education policies globally. This applies to individual higher education institutions, national governments and even more to regional levels. Mobility should be seen in terms of recognition of previous study to facilitate ease of movement and opportunities for student mobility and staff. However, all these require appropriate

In the EAC-PS the common practice of programme design is by course units (53.1%) and modules (25.0%). An academic year is organized into semesters, trimesters or by traditional term system. Under this arrangement, the weighting of modules or course units is based on credits. It is therefore expected that programmes of study are designed in such a way that a learner is given more responsibility for their learning process. This would put learners at the centre of curriculum design and delivery, and more choice in content, mode, pace and learning.

The workload of a learner includes all learning activities such as lectures, seminars, tutorials, projects, practical work, self-study and examinations. These activities can be organized depending on the design of the programme, expected learning outcomes during the duration of the study programme.
systems of facilitating, including a transparent and flexible readability procedures and services. This is of significant importance to East Africa as we strive to harmonize our education system and promote regionalization and cross-border mobility of students within the region. However, this requires an easily readable system of defining and packaging study programmes into modules or subjects which carry discrete weights in terms of learning/teaching credit hours or units that are mutually recognized between sending and receiving institutions and how the basic knowledge, competencies and skills are packaged for similar programmes to be easily comparable.

The challenges facing East African HEIs is that there are significant discrepancies on how programmes are constituted in terms of credit hours and expected learning outcomes. The variations in structural aspects of the programmes and the asynchronous academic years as well as the non-existence of learning outcomes and assessment criteria stand as major impediments to the implementation of a fair student mobility scheme. Thus, there is a need to develop a more uniform system not only in terms of programme structures, volumes and levels of learning but also regarding the availability of learning outcomes and assessment criteria.

In the East African context, the credit system is expected to ease the mobility of students and enhance the transparency of East African higher education systems and thus promote the attractiveness of East African higher education. Furthermore, the socio-economic development of the EAC relies largely on its skilled human resources and that university students constitute the critical mass of human resources that will drive the EAC integration agenda. An East African Credit System therefore will serve as an important instrument to facilitate mobility of students and comparability of learning outcomes acquired in various settings across the region. It will also provide for open and flexible learning paths and thus will facilitate the access to higher education for non-traditional learners within each country and across the region.

Henceforth, a credit system will make it possible for inter-university and cross border mobility of students, a situation where credits earned at one university will be recognized by other universities.
This would also create room for breaking away from the rigid time schedules of university programmes of study by allowing students to accumulate credits over longer periods. Such a student may even choose to learn under different delivery modes during different stages of the academic career. This will also help in eliminating duplication of learning and effort, which not only demoralizes learners but also, wastes resources and time.

The NQF facilitates (international) mobility, for students continuing their studies or moving on to the labour market. On the one hand, students have better insight into the quality of the level to be achieved in the programme that they want to follow or follow up; this also applies for students who bring with them competences acquired elsewhere as well as programmes followed earlier. On the other hand, students will have an internationally set recognition of educational achievements and they will be able to demonstrate their knowledge, skills and other competences through the qualifications.

Essential to a QF is a sound international interpretation of levels and accompanying qualifications. This demands the stringent application of a description of learning outcomes in terms of knowledge, skills and competences that students and employers can also understand. In the EAC higher education sector, this is already effected through the accreditation process and the PEACCM.

The EAQFHE will not be a new policy, but a step further along the road to transparency and the harmonization of HE systems and structures. Each EAC-PS bears an overall responsibility for the HEQF in the country. The EAQFHE will be charged with the task of overseeing the Higher Education Qualifications Framework in the across the borders and keeping it up to date. Today in the EAC-PS, institutions and programmes are already requested to indicate the level for Bachelor’s and Master’s degrees, through the accreditation process. This is done through description of intended learning outcomes which refer to the generic “accreditation" for the level of a programme and curriculum approval. For quality assurance of a Doctorate degree, per candidate a committee is installed by institution, which assesses if the candidate fulfils the learning requirements.

The implementation of the HEQF, therefore, in the EAC shall be conducted by the HEIs. The implementation shall require from the institutions that the learning outcomes achieved by the student in terms of knowledge, skills and other competences are described and are reflected in a prescribed EAC format.

**7.7 Conclusion**

Some people view a qualifications framework as highly disruptive, affecting not only revenue and cost structures of some higher education institutions, but also shaking up the core business and operating
models of the higher education system. Lessons from countries and higher education institutions that have implemented qualifications frameworks suggest that it has the potential to facilitate substantial organizational change, provided institutions approach qualifications framework tools as they would any large-scale transformation, adopting an institutional approach.

The EAC Partner States’ use of qualifications framework is mainstream, and the focus should be on establishment and institutionalization of the regional academic infrastructure to make this possible. Higher education institutions can still take advantage of the untapped potential this infrastructure has to transform their education and training systems, and create significant value. The onus will be on the higher education providers to act decisively and quickly, streamlining and repurposing their physical delivery and distribution and redirecting the freed-up capital to build out their infrastructure channel capabilities.

Currently, Partner States only have the resources and capacity to serve a small fraction of workers with the least skills and experience, who face multiple barriers to employment, and at the same time make the investments necessary to support job growth. They need to find new more effective and efficient ways to help a larger segment of this group gain the credentials they require to get a foothold in the labor market, while relying on reform of the schools to reduce the size of this group going forward. To capture this potential value and take advantage of further opportunities, the Partner States must see the effective use of the regional qualifications framework as an organizational transformation tool in its own right, requiring a shift in user mind-sets and behaviors within the Partner States and higher education institutions themselves.
References

- CUE, Stakeholders Workshop on Universities Regulations 2013 and Standards and Guidelines 2013, October 2013
- Directorate of Industrial Training, Generic Descriptors of Competence Levels, Uganda Vocational Qualifications Framework (UVQF) Summary of Generic Levels
- KNBS, Economic Survey 2013
- KNBS, Statistical Abstract 2012
- KNBS, Well-Being: A Social-Economic Profile, June 2008
- Prof. Venansius Baryamureeba, We Need to Overhaul Higher Education, Uganda 2014, Education
• Republic of Kenya, Sessional Paper No.1 of 2005
• Republic of Kenya, The TIVET Curriculum Development Framework (TCDF) of 2010,
• Republic of Kenya, the Kenya Constitution 2010.
• Republic of Kenya, The Universities Act Cap 210B of 2012,
• Republic of Kenya, Sessional Paper No 12 of 2012,
• Republic of Kenya, Kenya Vision 2030
• Republic of Kenya, Technical and Vocational Education and Training Act 2013
• Republic of Rwanda, Rwanda Vision 2020
• Republic of Rwanda: Skills Area and Numbers of Priority Skills Required Across Rwanda, Five Year Program for Priority Skills Development to Deliver EDRS II 2013-2018, MIFOTRA & NCBS, April 2012, Ministry of Public Service and Labour
• Republic of Rwanda, Official Gazette n° Special of 29/05/2013, N°27/2013 of 24/05/2013 Law governing organisation and functioning of Higher Education
• Republic of Rwanda, Official Gazette n° 38 of 23/09/2013, N° 71/2013 of 10/09/2013 Law establishing the University of Rwanda (UR) and determining its mission, powers, organisation and functioning
• Republic of Rwanda, Official Gazette nº 03 of 16/01/2012
• Republic of Rwanda, Official Gazette n° 31 of 30/07/2012: N°23/2012 of 15/06/2012 Law governing the organization and functioning of Nursery, Primary and Secondary Education...
• Republic of Rwanda, Key indicators of the Rwandan Vision 2020
• Republic of Rwanda: Rwandan National Qualifications Framework For Higher Education Institutions, February 2007
• Republic of Rwanda, Official Gazette n° 32 of 09/08/2010, N°51/01 of 13/07/2010 Presidential Order establishing quality standards in higher learning institutions.
• Rose Colby, author of Off the Clock – Moving Education from Time to Competency.
• The United Republic of Tanzania, Higher Education Development Programme, 2010-2015, Ministry of Education and Vocational Training
• The United Republic of Tanzania, National Higher Education Policy 1999, Ministry of Science, Technology and Higher Education (1996)
• The United Republic of Tanzania, The Universities Act 2005
• University College, Nairobi, Education employment and Rural Development: Report of the Kericho Conference, October 1966