EXECUTIVE SUMMARY

Commonwealth Africa countries are characterised by a wide diversity of national strategies and priorities. In the education sector, these countries have a range of higher education systems with a large number of higher education institutions, with variation in their sizes, visions and missions. Commonwealth Africa is not a monolithic entity but a group of 18 sovereign member states.

In the endeavour towards quality higher education in Commonwealth Africa, the intended and actual antecedents, transactions and outcomes of the delivery of doctoral programmes at the national level need to be streamlined. Furthermore, across Commonwealth Africa mechanisms should be in place to harmonise the various doctoral education provisions for the purposes of transferability and mobility.

Future developments of doctoral education provision undertaken by African universities in the Commonwealth will benefit from reflective engagement with generic structures and processes, including codes of good practice for doctoral education involving supervision and broader skills training, but the Commonwealth must clearly remain cognizant of its own diverse systems and context.

With globalisation, three critical aspects of doctoral education need closer examination: the unequal distribution of intellectual capital; the diversity of students, programmes and modes of inquiry; and intellectual risk-taking with the rise of interdisciplinary approaches. Based on an engagement with the Association of Commonwealth Universities, the Commonwealth of Learning, the International Association of Universities and other stakeholders, and through a review of literature on structures and processes informing doctoral education improvement and higher education institutions' effectiveness, this policy brief identifies generic factors that determine quality doctoral education. A policy paper arising from this policy brief will outline how a policy framework identifying problems, definitions, assumptions, indicators, processes and structures can be adopted in Commonwealth Africa to plan improvements in the quality of doctoral education, and to monitor and evaluate doctoral education reforms.

A policy paper on doctoral education in Commonwealth Africa will be prepared once this policy brief is agreed upon.

1.0   INTRODUCTION

The Commonwealth Tertiary Education Facility (CTEF), drawing from the collective experience of partners and stakeholders, seeks to shape doctoral education policy in Commonwealth Africa. This policy brief aims to point the way forward in terms of agenda and a broad framework to strengthen doctoral education policy in Commonwealth Africa, based on an understanding of the interaction between the forces of globalisation, the knowledge economy, human resource requirements and education. The brief is drawn from the conviction that improvements in doctoral education with a focus on generic structures and processes will help to bring about positive change in terms of the relevance and quality of doctoral education and doctorates.

Through a review of the literature on structures and processes informing doctoral education improvement and the effectiveness of higher education institutions, a policy brief is formulated to identify generic factors that determine quality doctoral education. Drawing from the literature and the collective experience of partners and stakeholders (COL, ACU, IAU, World Bank, UNESCO), definitions, indicators, processes and structures relevant to Commonwealth Africa can be formulated as a policy paper. The policy paper that will follow from this policy brief will outline how the policy framework identifying problems, definitions, assumptions, indicators, processes and structures maybe used in Commonwealth Africa to plan improvements in the quality of doctoral education, and to monitor and evaluate doctoral education reforms.

Several studies on doctoral education in Africa have highlighted the gaps between the rising need for quality doctoral education and the situation on the ground in terms of robust policy, institutional capacity, numbers and capacity of supervisors, funding, resources, completion time of candidates and generally low satisfaction with the doctoral education experience. Higher education policy reforms in doctoral education for Commonwealth Africa are viewed as the way forward; these would include improving the overall quality of doctoral programmes, management, and infrastructure, networking and strengthening the national higher education system.

2.0 GLOBAL POLICY CONTEXT FOR THE DOCTORATE IN AFRICA

The focus of this policy brief on doctoral education in Commonwealth Africa arises in a global context of intensifying concern about the role of higher education in the participation of nations in the knowledge economy. In turn, this has resulted in unprecedented attention from national governments around the world on doctoral education (including PhDs); doctoral graduates, with their high levels of skill in research, are looked to as potential drivers of innovation and economic growth, and the proportion of doctoral-qualified citizens is seen to have an integral relationship with a nation's capacity to innovate and drive knowledge-based economic development.

The last 25 years have seen the rise and ubiquitous spread of the knowledge economy policy discourse. This has had a significant impact on national higher education systems, which are now positioned as key components of National Innovation Systems (NIS). The key global policy documents which have influenced this trend are the OECD's The Knowledge-Based Economy (1996) and two key reports by the World Bank, namely Knowledge for Development (1999) and Higher Education in Developing Countries: Peril and Promise (2000).

As articulated by the World Bank in Knowledge for Development, the capacity of a nation to position itself for participation in the knowledge economy rests on the following 'four pillars':

- An economic and institutional regime that provides incentives for the efficient use of existing and new knowledge and the flourishing of entrepreneurship.

- An educated and skilled population that can create, share and use knowledge well.

- An efficient innovation system of firms, research centres, universities, think tanks, consultants and other organisations that can tap into the growing stock of global knowledge, assimilate and adapt it to local needs, and create new technology.

- Information and Communication Technologies (ICT) that can facilitate the effective communication, dissemination and processing of information (World Bank, 1999).

It can be readily seen that each of these four pillars assumes the presence in the country of a talent pool (in research and innovation) with the capacity to maintain and develop the required economic and institutional regimes, driving the innovation network of universities, research centres, firms and other organisations, and the ICT infrastructure.

3.0 COMMONWEALTH AFRICA: THE DIVERSITY OF EDUCATION SYSTEMS

Commonwealth Africais characterised by a wide diversity of national strategies and priorities. In the education sector, these countries have a range of higher education systems with a large numberof higher education institutions, with variation in their sizes, visions and missions. Arguably, there is an urgent need to ensure that higher education institutions graduate more high-quality PhDs so as to produce the next generation of academics and researchers with the skills and knowledge that Commonwealth Africa needs to compete on a global level and to meet the developmental needs of the region. This requires revisiting current approaches to doctoral education. Some of the challenges include: the absence of programmes to nurture a new generation of academics; a lack of guidance from experienced academics; inadequate research funding for new academics, and linking arrangements with academia and the private sector.

In the endeavour towards quality higher education, the intended and actual antecedents, transactions and outcomes of the delivery of doctoral programmes at the national level and across Commonwealth Africa need to be examined closely in order to produce a policy framework that can deal with issues at the national and regional level. Such a policy framework would enable comparability and mobility within Commonwealth Africa. The areas that need to be examined include:

- Vision and mission of the programmes
- Doctoral funding
- Leadership and governance
- Curriculum contents
- Academic quality and training of the next generation
- Talent management
- Mode of delivery
- Resource management
- Supervision system and process
- Twinning, co-badging, co-supervision, sandwich programmes and joint degrees
- Intensifying public and private links
- Evaluation system
- Continuous quality improvement
- Research capacity and infrastructure

- Social dimensions of doctoral study

In many advanced higher education systems, the harmonisation of different established doctoral education systems across national boundaries is almost an impossible task. In the case of Commonwealth Africa, it is important to begin bydesigning a generic framework for doctoral education so that the countries involved can contextualise this to progress together and learn from each other at the formative stages. A common system will ease the provision of technology transfer and support by Commonwealth and non-Commonwealth partners.

4.0 STRENGTHENING THE EDUCATIONAL PROCESSES

The concern for the quality of doctoral education is intertwined with the need to understand the educational processes and the models of doctoral education. Educational processes are formal and informal activities undertaken in the course of the PhD,whichshape the development of students and equipthem with the knowledge, skills and capabilities to conduct research. On the other hand, modelsof doctoral education frame the structure of doctoral programmes, and consequently these structures shape and influence educational processes.

4.1 Enhancing the relevance of research focus

Given the importance of research in contributing to the creation and use of new knowledge, the quality of doctoral education is closely related to the type of knowledge created and the ways in whichthis knowledge is disseminated. A strategic mechanism where students are organised into cohorts and funded to conduct research in specific areas, and simultaneously provided with training in transferable skills, could be instituted to enhance the relevance of research focus.

4.2 Enrich the knowledge and competence sets of graduates

The use of the term 'doctoral education' has symbolised a significant shift, from afocus on research as evidenced bythe thesis, to a concern with the preparation and development of students

to become researchers. Hence, becausethe focus is on the students, the educational processes involved have also increasingly focused on enriching the knowledge and skills sets of graduates. A common initiative adoptedto address this need is to require students to attend classes during the course of their programmes.

4.3 Strengthen support for students and improve the educational experience

In general, the socialisation process of doctoral education is commonly divided into either a laboratory-based or a solitary experience; hence, the support needed by students differs according to the processes they are going through. However, even though thesesocialisation processes differ, the supervisory relationship remains as the core and common feature, which further implies that strengthening support for students and improving the educational experience must also give due consideration to the supervisory relationship.

A common initiative adopted doctoral programmes that arebased on the centralsupervisory relationship is to introduce and encourage joint supervision and interaction. All these initiatives can be considered as arrangements made to address problems in supervisory relationships through checks and balances, and at the same time to widen the interaction of doctoral students beyond a single academic contact.

5.0 CONCLUSION AND RECOMMENDATIONS

Future developments of doctoral education provision undertaken by universities in Commonwealth Africa will benefit from reflective engagement with generic structures and processes, including codes of practice for doctoral education involving supervision and broader skills training, whilealso taking account of the region's diverse systems and contexts. This policy brief covers structure and processes as points of consideration, and mediation to context is crucial. Given these factors, it willbe important for HEIs in Commonwealth Africa to choose their particular definitions and indicators to assure quality, widen access and equity, and decide how to use these aspects in their own context.

However, there should be a broader frame of reference for doctoral education inCommonwealth Africa. Arguably, not least, there is always the concern that structures and processes sustain diverse forms of knowledge and ways of doing, which may be combined with established knowledge from global systems to drive doctoral education and produce quality graduates. This policy brief recognises the tension between nation building for development and the need for global engagement, but prior to that, good practices in terms of doctoral education need to be put in place.

Doctoral education has rarely been the focus of policy designed to achieve particular outcomes beyond the creation of a pool of competent researchers. It is clear thatwe need to look to doctoral graduates to staff positions in complex knowledge environments and to meet the developmental needs of specific countriesas well as the region as a whole. Doctorate holders are critical for innovation and discovery in all fields, but particularly in science and technology and for national capacity building and economic development. Universities need to build their research capacity by revisiting current approaches to doctoral education aimed atthe generation of research which are highly relevant to Commonwealth Africa. This requiresthe creation of research hubs, the development of entrepreneurial education (and other soft skills), and the intensification of links between the public and private sectors. A point for consideration is the social dimensions of doctoral education, and the provision of social needs in order to attract and retain doctoral candidates.

The preparation of a policy paper on doctoral education, if agreed upon, will consider among other things policy directionsregarding the following critical aspects of doctoral education:

- Funding for doctoral studies in Commonwealth Africa with a focus on full-time study
- Unequal distribution of intellectual capital
- Diversity of students, programmes and modes of enquiry
- Intellectual risk-taking and the interdisciplinary nature of doctoral research
- Approaches to supervision, and issues of benchmarking to improve output
- Reflective learning, staff exchange and sharing good practice through existing and emerging networks

- Data collection
- Elaboration of relationships between HEIs and industry

In the preparation of the policy paper, CTEF needs to engage experts from the Association of Commonwealth Universities, the Commonwealth of Learning, the International Association of Universities, and stakeholders in Commonwealth Africa. A policy paper could be presented in the next CCEM for policy approval and implementation.

6.0   BIBLIOGRAPHY

Bloom, D., Canning, D. and Chan, K. (2006). Higher Education and Economic Development in Africa. Human Development Sector, Africa Region.

Cloete, N. and Mouton, J. (2014). The Demand for a Doctorate: Global, African and South African Contexts. In Cloete, N. and Mouton, J. (Eds) (2014). The Doctorate in South Africa: Data, Discourse and Policy. Centre for Higher Education Transformation (CHET) and the DST-NRF Centre of Excellence in Scientometrics and STI Policy, University of Stellenbosch. (pp. 1–38). Cape Town, South Africa: African Minds.

Cloete, N., Sheppard, C. and Bailey, T. (2015). South Africa as a PhD Hub in Africa? In Cloete, N., Maassen, P. and Bailey, T. (Eds) (2015). Knowledge Production Contradictory Functions in African Higher Education. African Higher Education Dynamics Series Volume 1. (pp. 66). Cape Town, South Africa: African Minds.

IAU (2012). The Changing Nature of Doctoral Studies in Sub-Saharan Africa: Challenges and Policy Development Opportunities at Six Universities in Sub-Saharan Africa. Retrieved from http://www.iau-aiu.net/sites/all/files/IAU_Final_Report_Doctoral_Programmes_in_Africa.pdf

IAU – ACUP (2012). Report on International Seminar on Innovative Approaches to Doctoral Education and Research Training in Sub-Saharan Africa. Retrieved from http://www.iau-aiu.net/sites/all/files/Final_Report_IAU_ACUP_Seminar_on_innovative_approaches_to_doctoral_education_1.pdf

OECD (1996). The knowledge-based economy. Paris: OECD.

World Bank (1999). Knowledge for Development: Building Knowledge Economies.

World Bank (2000). Higher Education in Developing Countries: Peril and Promise

World Bank and Elsevier (2014). Report on "A Decade of Development in sub-Saharan African Science, Technology, Engineering and Mathematics Research. http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2014/09/26/000456286_20140926094154/Rendered/PDF/910160WP0P126900disclose09026020140.pdf

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Meeting on Doctoral Education in Commonwealth Africa Towards a Policy Brief
12 & 13 February2015 (Thursday & Friday)
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