Establishment of the World Bank African Centre of Excellence (ACE) In Sustainable Mining at the Copperbelt University

Approved by the World Bank Board of Executive Directors on May 26, 2016.

Introduction

The Eastern and Southern Africa Higher Education Centres of Excellence Project (ACE II) is an initiative of the World Bank in collaboration with the Governments of Ethiopia, Kenya, Malawi, Mozambique, Rwanda, Tanzania, Uganda, Zambia and Zimbabwe. The Aim of this project is to establish and strengthen specialization and collaboration among a network of selected higher education institutions across the sub-region. These institutions are designated as African Centres of Excellence (ACEs).

The Copperbelt University Africa Centre of Excellence in Sustainable Mining

The Copperbelt University has been selected through a highly competitive process to be the Africa Centre of Excellence in Sustainable Mining (CBU ACESM). CBU ACESM will focus on delivering excellence in education, training, and research in five thematic areas identified as strategic to improving the sustainability of the mining industry in Zambia and beyond:

(i) Occupational health and community vulnerability in mining environments.
(ii) Restoration of mined and derelict environments and waste management.
(iii) Energy use, mining and process design.
(iv) Biodiversity and ecosystem impacts.
(v) Livelihoods, entrepreneurship and corporate social responsibility.

Centre Objectives

The CBU ACESM will pursue five objectives.

a) Re-orientation of existing teaching and research programmes to address sustainable mining as a crosscutting issue.
b) Develop appropriate MSc, PhD and post-doctoral research programmes to tackle the sustainable development challenges and improve the participation of underrepresented societal groups such as females.

c) Develop partnerships and collaborations between the CBU ACESM, mining and allied industries, and the private sector to enhance research, entrepreneurship and corporate social responsibility.

d) Upgrade the qualifications and competences of teaching, research and support staff to strengthen institutional capacity in sustainable mining.

e) Upgrade research and teaching infrastructure and equipment to enhance CBU ACESM capacity to implement sustainable mining initiatives locally and in the region.

**Methodology**

The CBU ACESM is designed on the basis of a participatory action-oriented methodology to ensure that the ACESM together with its partners tackle the developmental challenge to the fullest extent. It will use multidisciplinary research approach in conducting demand-driven applied research. Research under the CBU ACESM will seek to engage in viable public-private partnerships (PPPs) with various partners to enhance involvement of industrial partners and other stakeholders in postgraduate training and research. The project will prioritise staff development and improving of staff competences through short-term international trainings, workshops and conferences. This will build both the capacity of staff as well as institutional collaborations. The training of MSc. and PhD will build on trans-disciplinary research approach and involve internships, workshops and conferences. CBU ACESM will establish applied research programs to enable scientists pursue high-impact projects that will contribute to national, regional and global understanding and improvement of sustainable mining for enhanced human wellbeing and environmental management.

**Results**

The CBU ACESM is expected to achieve numerous results and outcomes reflecting best practices in cooperation among higher education institutions.

I. A vibrant, prestigious and sustainable CBU ACESM for sustainable mining and allied solutions.

II. Increased number of researchers and jointly supervised students at MSc and Doctoral and post-doctoral level actively pursuing research on sustainable mining and allied issues.

III. Improved investment in infrastructure, equipment and ICTs for the teaching and research programmes offered and coordinated by the CBU ACESM.

IV. Improved quality and relevance of development-oriented teaching and research programmes sustainable development in the region.

V. Improved relevance and application of research and its results to solving key societal problems associated with mining environments.
VI. Establishment and consolidation of collaborations and linkages between CBU and other institutions in the Africa region leading to enhanced mobility for staff and students.

VII. The number of courses and programmes in CBU and other institutions that are recognized equivalents needed for transfer of credit and a step towards harmonization of each other’s qualifications.

VIII. Increased output in multi-disciplinary research outputs including publications, citation indices, and patents registered.

IX. Stronger links and partnerships between CBU, partner institutions and communities, and business and industry leading to greater recognition of quality and relevance of research and teaching programmes.

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