

Makerere

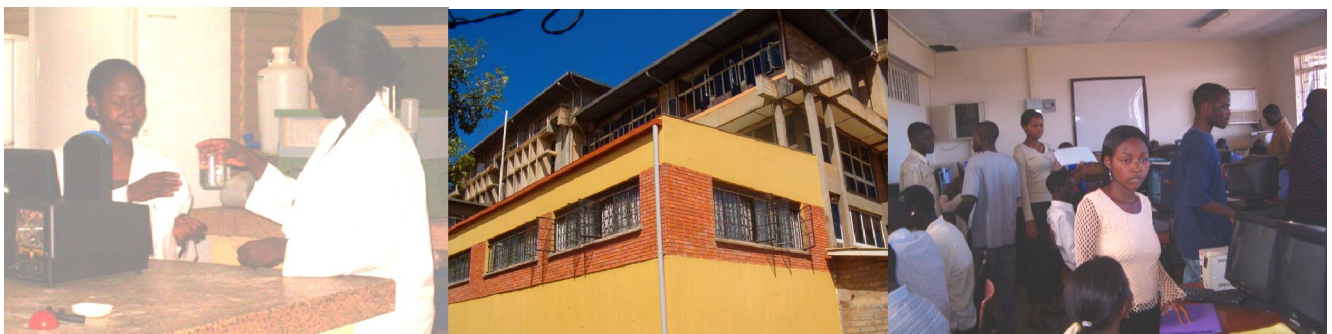


University

COLLEGE OF ENGINEERING, DESIGN, ART AND TECHNOLOGY

Empowering CEDAT to Meet Emerging Development Challenges

Strategic Plan 2011-2018



June 2011

Table of contents

1.0 INTRODUCTION	<u>444</u>
1.1 CEDAT IN THE 21ST CENTURY	<u>444</u>
1.2 THE PLANNING PROCESS	<u>666</u>
1.3 CAPABILITY PROFILE	<u>666</u>
2. BACK TO THE FUTURE	<u>777</u>
2.1 MISSION STATEMENT	<u>777</u>
2.2 ACHIEVEMENTS DURING PREVIOUS STRATEGIC PLANNING PERIOD	<u>777</u>
2.3 MAJOR SHORTCOMINGS	<u>888</u>
2.4 CEDAT SWOT ANALYSIS	<u>888</u>
3. CEDAT STRATEGIC DIRECTIONS	<u>999</u>
3.1 STRATEGIC DIRECTION RELATING TO THE STRATEGIC PILLARS OF THE UNIVERSITY	<u>999</u>
3.1.1 <i>Teaching and Learning</i>	<u>999</u>
3.1.2 <i>Research and Innovations</i>	<u>101010</u>
3.1.3 <i>Knowledge Transfer Partnership</i>	<u>Error! Bookmark not defined. Error! Bookmark not defined. 11</u>
3.2 STRATEGIC DIRECTION RELATING TO THE KEY INFRASTRUCTURAL SUPPORT TO THE DELIVERY OF THE COLLEGE'S STRATEGIC PURPOSE	<u>131313</u>
3.2.1 <i>Organization and management</i>	<u>131313</u>
3.2.2 <i>Quality Assurance</i>	<u>141414</u>
3.2.3 <i>Human Resources</i>	<u>151515</u>
3.2.4 <i>CEDAT Library</i>	<u>161616</u>
3.2.5 <i>Information Communication Technology</i>	<u>161616</u>
3.2.6 <i>Gender Mainstreaming in CEDAT</i>	<u>171717</u>
3.2.7 <i>Laboratory services</i>	<u>181818</u>
3.2.9 <i>Staff and Student support services</i>	<u>181818</u>
3.2.10 <i>Physical Infrastructure and Planning</i>	<u>191919</u>
3.2.11 <i>Resource Mobilization, Investment and Financial Management</i>	<u>191919</u>
3.2.12 <i>Internationalization</i>	<u>202020</u>
3.3 IMPLEMENTATION SCHEDULES	<u>222222</u>
3.4 INDICATIVE STUDENT ENROLMENT AND INCOME BY YEAR	<u>343432</u>

FOREWORD

On 13th December 2010, Makerere University Council approved the merger of the former Faculty of Technology (FOT) and the Margaret Trowell School of Industrial and Fine Arts (MTSIFA) into the College of Engineering, Design, Art and Technology (CEDAT).

During the period of the outgoing Strategic Plan 2000/2001-2006/7 the former Faculty of Technology and MTSIFA successfully implemented various strategic initiatives in the domains of teaching and learning, research and Knowledge Transfer Partnership which led to increased support from our development partners. That period saw a number of achievements made, including introduction of 4 new programmes, introduction of PhD training, development of a research culture, enhancement of international linkages and collaboration among others. There were also major improvements in the governance structure of FOT and MTSIFA. Most of these achievements were made possible by enormous support from development partners. Constraints still remain, particularly inadequacy of space, poor state of laboratories, high staff turn-over and others.

The successor Strategic Plan is a consolidation of the strategic plans of FOT and MTSIFA and aims at consolidating these achievements and positioning CEDAT within Makerere University and beyond to meet emerging developmental challenges. During the preparation and formulation of this plan, an all-inclusive and consultative approach was adopted. This approach ensured that the process was consultative and participatory, involving key stakeholders such as teaching and non-teaching staff, student representatives, representatives of key stakeholder organizations including the Uganda Institution of Professional Engineers (UIPE), Uganda Society of Architects (USA), Uganda Institution of Surveyors, Uganda National Association of Building and Civil Engineering Contractors (UNABCEC), Association of Fine Artists, alumni, as well as members from the public and private sector. It is, therefore, envisaged that both the process and outcome of the final Strategic Plan will be fully owned by the key stakeholders.

The Strategic plan articulates the mission, the goals and core values of the CEDAT within Makerere University.

With this strategic plan, CEDAT can boldly look into the future as a key provider of the best engineering, design, art and technology resources in the region.

My deepest gratitude goes to all those, who have participated in brainstorming sessions and eventual development of this strategic plan.

Assoc. Prof. Barnabas Nawangwe
AG. PRINCIPAL

1.0 INTRODUCTION

This strategic plan marks the beginning of a new era in the history of the former Faculty of Technology and MTSIFA in their union as CEDAT. The new strategic plan 2011-2018 will address not only the core activities of teaching, research and knowledge transfer partnerships but will also endeavour to tackle key cross cutting issues such as quality assurance, ICT, laboratory infrastructure, innovation, human resource development, library services and physical infrastructure as well as gender mainstreaming. The emerging universities within the country and the transformation of Makerere into a collegiate University are taken into account when formulating this strategic plan.

Specifically, the strategic plan seeks to address the emerging challenges of national and regional development, including lack of energy, inadequate road infrastructure, water resources management, fast urbanisation, industrialisation and others.

The mandate of CEDAT falls within the overall mandate of Makerere University, i.e.

- (a) the provision of higher education , promotion of research and advancement of learning; and
- (b) dissemination of knowledge and giving opportunity of acquiring higher education to all persons including persons with disabilities wishing to do so regardless of race, political opinion, colour, creed, or sex;
- (c) the provision of accessible physical facilities to the users of the Public University

1.1 CEDAT In The 21st Century

We are living in an ever changing world. The pace of technological development has increased tremendously with the new advances in ICT. Engineering and other aspects of technology are very much influenced by the new advances in ICT. The professionals we train must be able to work in any place on earth and they should therefore be equipped with the latest knowledge and skills in ICT. Globalisation also means that graduates must be conversant with the ever changing geopolitical situation in the world. They must hence be equipped with knowledge on socio-political dynamics of society. This is the context within which the new strategic plan is designed.

The Political, Economic, Social, Technological, Legal and Environmental (PESTLE) study conducted in 2006 noted as follows:

“Apparently, a winning innovation requires taking into consideration the interface between market needs and the changing environment of art, design, science and technology. The concern for the positive impact of innovations in nation development tangibly transforms into close cooperation between research institutes or universities (the merchants of scientific innovations) and industries (the consumers of those innovations). This can further be understood to operate under influence of the ‘science-

push' theory which combines science and technology as powerful novelty providers that lead to industrial innovations. However, as depicted in Fig. 3.2 research findings show that Makerere University has sizable gaps due to minimal collaboration with industries in running industrial fellowships, which has somewhat jeopardized proliferation of significant technological innovations. In a nutshell and as can be interpreted in Fig 3.2, the following deficiencies surround Makerere University:

- § Fair levels of science & technology projects' collaboration with the private and public sector;
- § Fair level attraction of funding incentives towards technological innovations;
- § Fair rate of adapting science-based academic courses for the market places demonstrated by performance of respective alumni;
- § Low priority on budgeting for industrial research and development;
- § Low output of technological innovations;
- § Lukewarm dissemination of technological knowledge and innovations towards technology integration among industries, other potential utilizers and the general public;
- § Lukewarm influences on the development of technology innovation and utilization policies;
- § Low capacity to influence 'hard' technology transfer from elsewhere into the local setting;
- § Low levels of collaboration with other universities, experts and technological centers in innovating technology for development;
- § Inactivity at national, regional and international levels in conducting technology for development;
- § Insignificant championing of improvement of products already on the market;
- § Inadequate initiatives towards reduction in costs of production among industries;
- § Inadequacy in creating new scientific or technological knowledge and its subsequent application in the market place;
- § Deficiencies in expanding and refining new innovations towards production of new marketable products;
- § Low level of collaboration with the National Bureau of Standards in conducting research studies of significant value of varied fields of industrial activity.
- § Inadequate link between industrial development and design.

However, despite Makerere's critical nature of the above state of affairs, 60% of the stakeholders interviewed were of the view that the potential in these technological innovations and interaction with industries is huge and that what is needed is to

identify potential areas, prioritize them and effectuate action planning. Such is the consensus that the next strategic plan needs to keep in full view”.

The new key challenges include search for alternative energy sources, the discovery of oil in Western Uganda, the ever growing ICT revolution, improvement of competitiveness of local products and others.

1.2 The Planning Process

This strategic plan was born out of the general framework that was developed after the university-wide planning workshop held at Colline Hotel, Mukono in February 2007. Thereafter, departments provided in-put into the strategic plans for the former Faculty of Technology and MTSIFA, which were discussed at strategic planning workshops in April 2007. The strategic plans of the two units are now merged and consolidated into one strategic plan for CEDAT following a number of college workshops and retreats..

1.3 Capability Profile

In 1937, Margaret Trowell, the wife of a British medical doctor began informal art classes on her veranda at her residence on Mulago hill. In 1940, these art classes were moved to Makerere College when Margaret Trowell took over the management of the Museum that was housed in the College buildings. In the following years, the art classes had become popular and there was a need to recognize the emerging talent. In 1948 the first students of the School of Fine Art graduated with certificates in Art Education. In 1958, the first diplomas in Fine Art were awarded and in the same year Trowell retired. In recognition of the contribution she made towards the development of art, not only in Uganda but also beyond the region, the Art School was named after her. The school's curriculum expanded in 1995 with the incorporation of Industrial Arts courses. As a result, the School was upgraded to Faculty status with three departments namely: Industrial Art and Design, Painting and Art History and Sculpture and Drawing. MTSIFA has grown from a humble enrolment of 20 students in the 70s to the current 400. MTSIFA has also diversified programmes to include Multi-media, Industrial Arts and Design.

Established in the 1970s, the former Faculty of Technology started with the three traditional disciplines of Civil, Electrical, Mechanical Engineering. Starting with an initial in-take of 10 students, the former Faculty of Technology had expanded over the last 40 years in scope to include the departments of Architecture, Construction Economics and Management, and Surveying, as well as the service Engineering Mathematics sub-department. The former Faculty of Technology, now slit into the schools of Built Environment and School of Engineering has a total graduate and undergraduate enrolment of over 2300 students. Similarly,

The academic staffing situation has continued to improve and, through an aggressive staff development programme supported by Staff Development (Makerere University),

Carnegie, Sida/SAREC, NUFU and others more than 70 members of staff have trained or are training for PhDs in various fields. CEDAT has a total academic staff establishment of 160, but this is under review. This gives a student/staff ratio of 1:15. Most of the academic staff positions are filled. Currently, of the 165 academic staff in the College, 65 or 60% either hold or are training for PhDs. The Department of Construction Economics and Management is expected to increase its establishment from 14 to 42, given that they handle 3 degree programmes. Similarly, the Department of Electrical and Computer Engineering will have its establishment increased up to 51 to cater for the new programme in Telecommunications Engineering. The total CEDAT establishment will be increased to more than 400 in the near future. Keeping the recommended average staff/student ratio of 1:20, total enrolment may increase to more than 8,000 students. This will necessitate conducting both day and evening programmes.

Given the large number of highly qualified human resource, CEDAT has embarked on an ambitious research programme and wishes to make a positive contribution to policy and general development knowledge.

2. BACK TO THE FUTURE

2.1 University Vision

To be the leading institution for academic excellence and innovations in Africa.

2.2 CEDAT Mission Statement

The mission of CEDAT is to undertake high quality research relevant to the region's and global development needs and consequently produce highly qualified graduates with specialised skills but equipped with holistic knowledge, as well as Professional Services and Innovation for Sustainable National and Regional Development.

2.3 Achievements During Previous Strategic Planning Period

The following were the key achievements during the previous strategic planning period:

- n Student enrolment increased from 800 to 2000
- n PhD programmes were launched
- n 6 new undergraduate programmes were launched
- n International links were enhanced
- n Research culture was institutionalised
- n Number of staff with PhD increased by from 16% to 40% of the staff
- n Enrolment of female students to more than 25%
- n Research and Technology Transfer centres were established

The factors which led to these achievements included the following:

- Support of development partners including Sida/SAREC, NUFU, NORAD, Italian Government and others
- Improved quality of staff
- Favorable employment climate for graduates
- Improved University policy on recruitment and promotion of staff

2.4 Major Shortcomings

The major shortcomings included the following:

- High staff turnover
- Limited laboratory exposure
- Limited number of publications in peer reviewed journals
- Insufficient practical exposure
- Low levels of remuneration

The following were the major constraints faced:

- Unfavorable remuneration and employment terms
- Poor staff welfare
- Poor or obsolete laboratory equipment
- Inadequate laboratory space
- Insufficient field attachment
- Limited funding

2.5 CEDAT SWOT Analysis

INTERNAL	EXTERNAL
Strengths <ul style="list-style-type: none"> ▫ Leading provider of engineering, design, art and technology education ▫ High quality of students (top brains) ▫ High quality of staff ▫ Goodwill of government, donors and other stakeholders ▫ Conducive academic environment ▫ Capacity for research is high 	Opportunities <ul style="list-style-type: none"> ▫ High demand for technical programmes ▫ Technological advances (ICT) ▫ Fast growing industrial, building and service sectors ▫ Oil discovery ▫ Competitive advantage (govt. Policy on scientific and technological training) ▫ Donor goodwill
Weaknesses <ul style="list-style-type: none"> ▫ Many staff still without PhD ▫ High staff turnover ▫ Inadequate laboratory and studio space ▫ Inadequate staff office space ▫ Poor state of laboratory equipment ▫ Poor terms of service 	Challenges <ul style="list-style-type: none"> ▫ New competitors on the block ▫ Low public funding ▫ Low level of technological development ▫ More competitive private sector employment ▫ Lack of linkages for knowledge partners ▫ Limited capacity of would be partners

<ul style="list-style-type: none"> n Low motivation of staff n Poor ratio of student to computer facilities n Lack of modern training aids n Limited studio research and publication output n Limited staff refresher training opportunities n Limited teaching staff exchange programme 	
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--

3 CEDAT STRATEGIC DIRECTIONS

3.1 Strategic Direction Relating To The Strategic Pillars Of The University

3.1.1 Teaching and Learning

The strategic plan for higher education 2003-15 calls for expansion of supply capacity by higher education institutions to increase access opportunities to those eligible. The Government of Uganda has called for the tripling of enrolment of students in engineering and technology disciplines within the next ten years.

Goals

1. To provide a teaching and learning environment that assures superior experience to both the learners and the academic staff in order to produce graduates relevant to the world of work and society at local and international levels

Objectives

- a) To design programs with content appropriate/relevant to the changing needs of the society.
- b) To promote collaboration with stakeholder institutions, including professional organisations and industry in the design of academic programs.
- c) To integrate ICT, ethics, gender and entrepreneurship in teaching and learning and provide high quality and a variety of relevant and up-to-date teaching and learning materials.
- d) To integrate learner-centred and problem-based teaching, learning and research in the curriculum
- e) To strengthen industrial training/field attachment and best practices
- f) To ensure a more efficient evaluation (continuous assessment and examination)
- g) To foster a conducive environment for generation of feedback about CEDAT programmes from stakeholders
- h) To cultivate a favourable environment for generation of feedback about CEDAT programmes from alumni

Measures of success

- a) Number of dedicated lecturers using advanced technologies in teaching and learning
- b) Increased use of tutorials, studio practice and laboratories in teaching
- c) Students evaluation of the effectiveness of the lecturer's teaching
- d) Number of courses conducted through e-learning
- e) Number of organisations/partners co-supervising students on field/industrial attachment
- f) Number of programmes which have integrated courses in ethics
- g) Number of programs designed on collaborative basis with other institutions and the private sector
- h) Number of programs whose curricula has been reviewed to integrate generalist skills such as communication, ICT, gender and problem solving skills
- i) Number of new programmes mounted that meet emerging needs
- j) Increased enrolment in the college
- k) Number of programmes accredited nationally and internationally.
- l) Number of employable graduates in the private and public sector
- m) The percentage of innovative graduates that have set up their own firms
- n) Completion rate and quality of grades of students per programme
- o) Dedicated staff that mentor students and engage in research and publication

3.1.2 Research and Innovations

The former Faculty of Technology and Margaret Trowell School of Industrial Fine art, units now merged under the CEDAT have over the past decade established themselves as a major Science and Technology Art and Design centre in the region. Research has been institutionalised and the research culture has been consolidated. The next ten years should see further consolidation of both basic and applied research as well enterprise and innovation.

Research Agenda:

The research agenda for CEDAT takes into account the needs of society and the challenges faced at the local, regional, and international arena in the areas of Engineering, Design, Art and Technology. The research is geared towards finding appropriate sustainable solutions. The key areas to address include the following:

- a) Efficient provision of infrastructure and land management systems.
- b) Provision of energy taking into account environmental sustainability
- c) Use of Information and Communication Technologies and Geo-Information Sciences and Technology
- d) Efficient use of natural resources
- e) Architecture, planning and urbanism
- f) Provision of engineering materials in a sustainable way

- g) Conservation of artefacts; provision of visual and industrial art that satisfy the requirements.

Goal:

To enhance knowledge generation and its access for the benefit of society.

Objectives

- h) To increase the quality of designs, art and technology output grounded in basic and applied research undertakings
- i) To boost the research capacity of staff and students
- j) To increase the entrepreneurship ability of staff and students by incubating ideas in areas such as alternative energy solutions, use of intermediate technology and software development for adoption by the private sector.
- k) To promote the utilisation of research innovations
- l) To enhance the CEDAT research infrastructure
- m) To Mainstream gender in the research functions of the college.
- n) To promote the use and application of indigenous, traditional, and emerging technologies for sustainable development
- o) To strengthen the research coordination system within the college

Measures of success

- a) Number of research outputs such as journals, patents, books and other publications.
- b) Number of competitive research awards
- c) Number of conferences and exhibitions
- d) Number of staff publishing in peer reviewed international journals
- e) Number of staff and students receiving awards for innovation
- f) Number of women and other special interest groups involved in research activities
- g) Number of research proposals engendered
- h) Number of technological innovations transferred to the private sector
- i) Number of patents registered.
- j) Number of enterprises incubated from CEDAT STI initiatives.
- k) Number of research project proposals approved from various funding agencies.
- l) Amount of revenue generated from Science and Technology consultancies
- m) Number of art/design products produced
- n) Number of centres and teams actively involved in research and dissemination of findings.

3.1.3 Knowledge Transfer Partnerships and Networking

Knowledge transfer partnerships have for quite a long time been one of the strengths of CEDAT. This has been done through the Uganda Gatsby Trust and Technology Consultants (TECO). Knowledge transfer partnerships assist the College to share and

gain better understanding of the community around us in order to improve the quality of delivery. This function of the College will grow during the next eight years.

Goal:

To enhance linkages between the College and Partners for purposes of knowledge sharing and service provision.

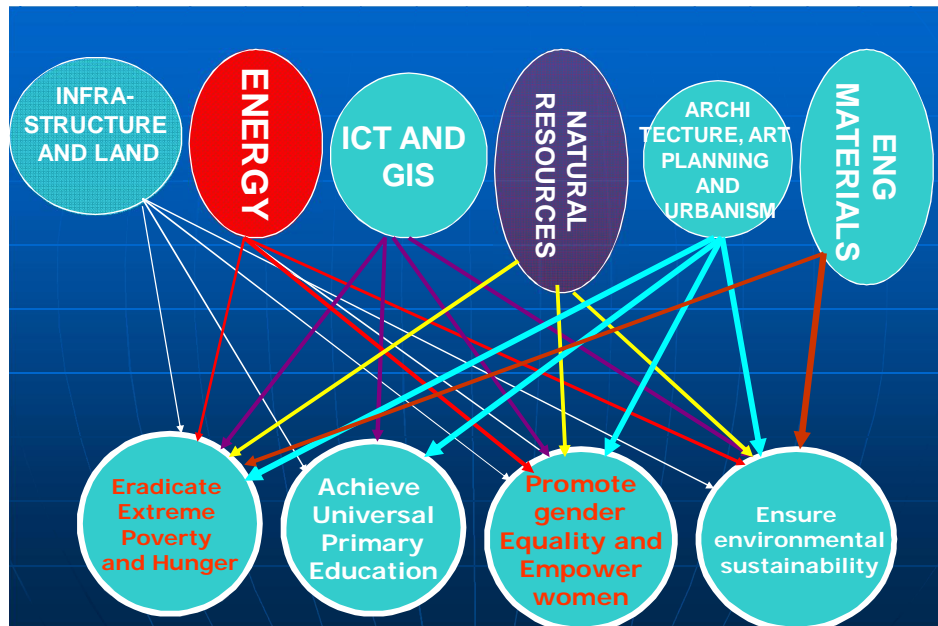
Objectives

- a) To increase avenues for disseminating CEDAT findings for sustainable community development
- b) To promote the translation of CEDAT findings into accessible and useable material for policy development and revision
- c) To enhance CEDAT competitive position as a technology development & referral institution for vocational & community development
- d) To provide avenues for partnerships activities
- e) To engender all knowledge partnership programmes
- f) To collaborate with the Industrial sector
- g) To further develop and consolidate CCDT and TECO capacity for consultancy and Knowledge Transfer Partnership services
- h) To increase collaboration with the Industry and to archive industrial reports.
- i) To establish educational and cultural exhibition centres in selected regions of the country to disseminate findings and innovations
- j) To improve student and staff Knowledge Transfer Partnership activities e.g trips, exchange programmes, workshops etc.

Measures of Success

- a) Number of practicing professionals and resource persons supporting teaching and learning.
- b) Number of art/design residence programmes established
- c) Number of workshops and conferences organised
- d) Number of consultancy and Knowledge Transfer Partnership/knowledge transfer partnerships/ projects
- e) Number of Government policy briefs
- f) Number of links with Industrial sector on marketing and product design in all related programmes
- g) Number of Knowledge transfer partnerships engendered
- h) Number of Product Development Centres established
- i) Number of Regional Exhibition Centres established
- j) Number of seminars held with government officers
- k) Number of study trips, Knowledge Transfer Partnership activities and exchange programmes
- l) Number of training programmes for TECO staff and consultants
- m) Number of visitors to CEDAT exhibitions
- n) Number of women participating in Knowledge Transfer Partnership and consultancy projects
- o) Number of active mobile art and design clinics

RESPONSE OF CEDAT RESEARCH THEMES TO MDG



3.2 Strategic direction relating to the key infrastructural support to the delivery of the College's strategic purpose

3.2.1 Organization and management

The CEDAT will be guided by the overall policies of the University, particularly with regard to governance, Quality Assurance, Gender mainstreaming, etc. CEDAT will embark on strengthening her organisational capacity.

Goals:

1. To improve the management function so that it assures an efficient and effective operational environment
2. To provide a gender responsive organizational environment
3. To improve the image of CEDAT through aggressive publicity of its achievements and outcomes

Objectives:

- a) To improve efficiency in management service
- b) To establish a well-structured and regular information exchange link with the departments and staff focusing on issues of leadership and management, and image building and marketing
- c) To raise the CEDAT profile, image and reputation with the regular interaction with varied media.
- d) To build the capacity of leadership and management at all levels
- e) To integrate gender in all CEDAT activities

- f) To affiliate with other institutions providing related training facilities

Measures of success

- (i) Constituent College fully operational by July 2011.
- (ii) Increased use of ICT in management functions
- (iii) All CEDAT programmes internationally accredited by 2013.
- (iv) Regular surveys of customer satisfaction instituted
- (v) Weekly electronic journal launched
- (vi) Faculty website regularly up-dated
- (vii) Regular conferences and exhibitions organised
- (viii) Increased knowledge by Staff about, gender analysis skills and taking initiative to integrate gender into their programmes and activities;
- (ix) Number of women in leadership and management positions
- (x) Number of leadership and management seminars held for the leaders and managers
- (xi) Number of awareness seminars held for staff
- (xii) Number of institutions affiliated to the college

3.2.2 Quality Assurance

The CEDAT shares Makerere's aspiration to be the leading institution for academic excellence in the region. Key to achieving this strategy is the development of an effective and efficient Quality Assurance (QA) system underpinned by quality teaching, research and Knowledge Transfer Partnership services relevant to life long learning and professional development. Indeed, quality assurance is the cornerstone of any professional education.

Goal: To enhance the efficiency and effectiveness of the core activities of CEDAT.

Objectives

- a) To increase the capacity to monitor academic performance in a systematic manner and to implement the quality related decisions of the University and CEDAT.
- b) To enhance CEDAT capacity for generating high quality and relevant research output.
- c) To provide and maintain high quality academic support systems and infrastructures;
- d) To secure professional guidance at the macro level in the area of curriculum development
- e) To enhance the integration of issues of equity and equality in the functions of the College
- f) Inter-college collaboration to ensure interdisciplinary teaching, learning and research promoted.

Measures of Success

- a) A fully functional Student Support Service System in place
- b) Percentage of employable graduates
- c) Number of programmes reviewed by professional bodies
- d) Number of CEDAT programmes gaining accreditation by NCHE and international organisations
- e) Number of publications in internationally refereed journals increased to at least one per academic staff per year.
- f) Number of publications in citation indices
- g) Number of staff with personal computers
- h) Level of satisfaction of the management and staff of CEDAT.**
- i) Number of awards given to excelling staff.
- j) Number of awards given to excelling students.
- k) Course guides availed to students.
- l) Number of course evaluations and self-reviews for lecturers.
- m) Number of students assigned to mentors.
- n) Support system and policy to sanction non-performers set up.
- o) Number of departmental, school and college meetings held in a year
- p) Number of seminars for year III & graduate students.

3.2.3 Human Resources

In the current knowledge based era human resources are the prime movers of any institution, particularly a University. Staff recruitment and retention will play a critical role in the delivery of the College's mission. Yet CEDAT is constrained on issues of staff retention, remuneration and gender imbalances. The staff evaluation mechanism needs to be streamlined.

Goal: To assure a high quality human resource base

Objectives:

- a) To improve staff performance management system in the College.
- b) To improve staff recruitment and retention to match the students' numbers.
- c) To enhance staff capacity with a view to improving skills
- d) To appraise newly appointed staff members of their roles and responsibilities through induction and training.
- e) To address gender imbalances, and implement guidelines for incorporating gender into different College functions.
- f) To encourage staff to register with professional bodies

Measures of Success:

- a) Increasing number of induction and training programmes conducted for all new appointed and promoted staff (including pedagogical training)
- b) Staff Student Ratios (SSR) in conformity with the National Council of Higher Education (NCHE) and International guidelines realized
- c) Reduced turnover in permanently appointed staff per personnel category
- d) At least 90% of positions in staff establishments filled by 2015.
- e) Number of PhD holders and members of academic staff registered for PhDs.
- f) Percentage of female in academic and non academic positions increased to 40% by 2017.
- g) Increased percentage of Female Academic staff with PhDs.
- h) At least 10% women scholars at Senior Lecturer level in the next 5 years;
- i) At least 10% women scholars at senior levels in academics/administration in the next 5 years.
- j) Number of visiting scholars received in the College
- k) Number of academic staff registered for graduate studies
- l) Number of non-academic staff trained.
- m) Number of staff registered with professional bodies

3.2.4 CEDAT Library

The library services play a crucial role in providing support to the teaching, learning and Knowledge Transfer Partnership and the intellectual inquiry functions of a University. The development of a specialised library as a branch of the main library will go along way in enhancing the teaching and research functions

Goal. To improve the effectiveness and efficiency of the CEDAT Library

Objectives

- a) To increase and diversify information resources to cater for expanded CEDAT programmes, research agenda and Quality Assurance
- b) To expand space and facilities in the CEDAT library
- c) To increase access to 'Libraries without walls'

Measures of Success

- a) Increased access and use of library services
- b) Library moved into new and more spacious room
- c) The CEDAT Library linked electronically to the Main Library
- d) Number of book titles and volumes per student

3.2.5 Information Communication Technology

Following adoption of the policy which laid out the strategy for institutionalisation of Information Communication Technologies (ICTs) in the University functions, ICTs have

progressively been implemented in the CEDAT functions. However, the College is still experiencing some constraints, including inadequacy of space for ICT labs. The leadership for e-learning is also weak. Accessibility by members of staff is still inadequate.

Goal:

- To Promote an Enabling Environment for CEDAT to advance in Academic Excellence and Innovations.
- To establish and maintain an up to date website **and** gallery for **the College**.
- To train staff and students in ICT skills.

Objectives

- a) To harness ICTs to improve teaching, learning, research and Knowledge Transfer Partnership
- b) To increase access to ICT facilities in the College
- c) To improve the capacity of staff and students in ICT use

Measures of success

- a) Improved staff and student ratios to computers
- b) 24hr access to computers and internet
- c) Optimal availability of computers determined based on use per unit time
- d) Increased number of Staff and students with ICT skills
- e) Gender mainstreamed in all ICT services
- f) Number of hits per month registered on CEDAT web page.

3.2.6 Gender Mainstreaming in CEDAT

There is need to continue integrating gender mainstreaming in the College functions and policies. Further, there is need for the College to operationalise and strengthen the CEDAT Gender Mainstreaming Sentinel Site.

GOAL

To improve the Gender terrain (staff, mainstreaming) in the CEDAT.

OBJECTIVES

- a) To enhance the effectiveness of the Gender Mainstreaming Sentinel site at CEDAT.
- b) To promote gender responsive organizational culture in CEDAT

MEASURES OF SUCCESS

- a. Number of departments mainstreaming gender in their programmes by 2018
- b. Number of students of CEDAT able to initiate and implement gender related activities with minimum support;
- c. Sentinel site fully established and operational
- d. CEDAT standing out as an outstanding role model of a best practice in promoting gender equality at Makerere and beyond by 2018

3.2.7 Laboratory services

Laboratory and workshop training are key to science and technology education.

The revamping of laboratory education & services in CEDAT is urgent. The College must establish internationally recognized laboratories to guarantee internationalization, vocationalisation, entrepreneurship development, referral laboratory Knowledge Transfer Partnership services. It should be noted that the cost of technical education is dependent upon the quality and effectiveness of labs.

Goal:

To revamp and upgrade Laboratory Services as a pillar for producing highly skilled graduates with blended intellectual-vocational-entrepreneurial capacity to transform society

Objectives

- a) To enhance the organization & management of laboratory facilities in the College
- b) To increase and equip central & unit laboratories for specialized applied & basic research, teaching and learning.
- c) To revamp and modernise workshops for effective training and Knowledge Transfer Partnership service delivery.

Measures of Success

- a) CEDAT Laboratory Facility System strategic plan in place & implemented
- b) Equipment maintenance policy and regulations in place
- c) Laboratory maintenance units in place & laboratory staff retooled in maintenance and improved maintenance culture.
- d) Laboratory equipment production units established and operational
- e) CEDAT laboratories and workshops accredited by UNBS

3.2.9 Staff and Student support services

CEDAT will endeavour to promote an environment that will strengthen student's participation, increase staff retention, and facilitate lifelong learning.

Goal

To enhance the academic and social development of CEDAT staff and students

Objectives

- a) To create a positive environment for staff and students.
- b) To provide accessible multi purpose facilities for staff and students.
- c) To promote student activities in governance and welfare.
- d) To provide a furnished office for students.

Measures of Success:

- a) Student and staff facilities increased and improved
- b) Increased staff and student's satisfaction of services provided by the University.
- c) Increased number of staff and students using the services.

3.2.10 Physical Infrastructure and Planning

Space for teaching, research and offices has been one of the College's biggest constraints for the last twenty years. The new building extension has helped alleviate this problem.

Goal

To assure improved utilisation of physical space in the CEDAT buildings.

Objectives

- a) To improve usage of physical space for labs, workshops and lecture rooms
- b) To improve access to CEDAT facilities by students and staff with disabilities.

Measures of Success

- a) Building extension fully equipped and functional
- b) Facilities for persons with disabilities put in place
- c) Renovation of all existing CEDAT buildings
- d) Improved offices space for administration and academic staff
- e) Upgraded compounds and access roads.

3.2.11 Resource Mobilization, Investment and Financial Management

The effective and efficient delivery of the College's mandate ultimately depends on the College's capacity to marshal financial resources to muster the necessary human and physical resources in sufficient measure.

Goal:

- (i) To widen the College financial resource base.
- (ii) To streamline the financial resource allocation mechanism

Objectives:

- a) To improve the capacity of the College to be entrepreneurial in developing a comprehensive business plan.
- b) To build capacity for CEDAT to be innovative in resource mobilisation by recruiting a project development officer
- c) To take advantage of the University's investment policy

Measures of Success

- a) Government funding sustained and increased
- b) At least 1 major alumni gift per annum (between 2011 -2018) received from newly-cultivated prospects.
- c) Number of new partnerships forged and awards signed
- d) % of successful proposals out of the total number written
- e) Annual turnover

3.2.12 Internationalization

CEDAT is well placed to attract international students and scholars. Internationalisation will help uplift the profile of the College and also expose the staff to much needed international outlook.

Goals

- (i) To improve the international exposure of our staff and students in teaching, learning, research and service provision.
- (ii) To increase the international resource flow.

Objectives

- a) To increase the number of staff and students exchange visits between Makerere and other international institutions.
- b) To collaborate and benchmark with leading art and design institutions regionally and internationally
- c) To implement a full semester system to allow student exchange, time for lecturers to do research, allow credit transfer and broadening of the curriculum.
- d) To ensure that our graduates are suitable for the global market.
- e) To promote interdisciplinary research with local, regional and international partners.
- f) To aim at having internationally recognised research and exhibition facilities
- g) To promote internationally recognised conferences and travelling exhibitions

Measures of success

- a) CEDAT alumni recorded, contacted and monitored.
- b) Improved international rating for programmes at CEDAT.
- c) Number of international research and Knowledge Transfer Partnership projects
- d) Number of foreign students in the student body
- e) Number of local students in International student bodies
- f) Number of foreign staff in the CEDAT staff body
- g) Increased number of Makerere staff serving international bodies
- h) Increased number of research collaborative linkages
- i) Number of regional and international universities that CEDAT has collaboration with.
- j) Semester programme implemented
- k) Number of international conferences and travelling exhibitions
- l) The value of state-of-the-art equipment.

3.3 Implementation Schedules

a) Teaching and Learning

Objectives	Strategic Interventions	Measures of Success	Responsible personnel	Implementation Schedules by year			
				2012	2014	2016	2018
To integrate Gender and ICT in teaching and learning	Submit programmes to Dept of Women and Gender Studies for engendering	Percentage of programmes engendered	Deans and HODs	30%	50%	80%	100%
	Require all lecturers to format their courses in e-learning mode	Percentage of courses using e-learning	Deans and HODs	10%	20%	30%	40%
To provide programmes that impart knowledge, and specialised and general skills	Include tutorials and labs for all programmes	% of courses with tutorials and labs	Deans and HODs	20%	30%	50%	60%
	Include Problem Based Learning (PBL) and use of research in teaching	Percentage of courses using PBL	Deans and HODs	20%	30%	60%	80%
	Review all programmes taking into account the admission criteria	% of programmes whose curricula has been reviewed to incorporate generalist skills	Deans and HODs	20%	30%	50%	60%
To integrate ethics and entrepreneurship courses in all programmes	Review all curricula to include courses on entrepreneurship and ethics	% of programmes which have integrated courses on ethics	Deans and HODs	30%	50%	70%	90%
		% of programmes which have integrated courses on entrepreneurship	Deans and HODs	30%	50%	80%	100%
To promote collaboration with stakeholder institutions in the design of academic programmes	Submit all curricula for review and in-put by stakeholder institutions	% of programmes designed/reviewed on collaborative basis with stakeholder s	Deans and HODs	50%	80%	100%	100%

	Organise regular seminars with stakeholders	No. of seminars/conferences organised with/for stakeholders		2	2	2	2
To strengthen industrial training/internship attachment	Appoint industrial partners as supervisors	No. of industrial partners supervising students on industrial training	Deans and HODs	10	20	30	30

b) Research and Innovations

Objectives	Strategic Interventions	Measures of Success	Responsible Personnel	Implementation Schedules by year			
				2012	2014	2016	2018
To increase visibility of research centres such as CREEC and CTDD	Organise at least one conference and exhibition per year	No. of conferences and exhibitions held	Directors	2	2	2	2
		No. of visitors to the centres	Directors	50	60	70	80
To increase quality and quantity of research out-put	Provide training for researchers in writing skills	No. of research out-puts	Deans & D/principal	30	50	60	80
		No. of staff publishing in peer reviewed journals		10	20	30	40
To establish and maintain research journals	Establish three peer reviewed journals one for each school	No. of journals managed by the college	D/Principal	1	2	3	3
To strengthen the research coordination system	Appoint a research coordinator	Research coordinator appointed	Principal	YES			
		Create data base of researchers at the College	Principal	YES			
To increase the entrepreneurship ability of staff and students	Provide financial and administrative support to researchers with innovative	No. of staff and students registering patents	Principal	2	3	5	10
		No. of staff and students	Principal	3	5	6	8

	ideas	receiving awards for innovation					
To mainstream gender in the research functions of the College	Provide support to women researchers through affirmative action	% of research proposals engendered	D/Principal	50%	60%	70%	80%
		No. of women winning research grants		3	5	8	10
To promote use and application of indigenous, conventional and emerging technologies	Lay strategy for transfer of technology to community	No. of innovations transferred to the private sector	D/Principal, Deans & HODs	5	6	8	10
		Amount of revenue from S&T		\$10k	\$15k	\$20k	\$30k

c) Knowledge Transfer Partnerships and Networking

Objectives	Strategic interventions	Responsible Personnel	Measures of Success	Implementation Schedules		
				2012	2014	2016
To increase the visibility of CEDAT in Knowledge Transfer Partnership and community development	Launch an aggressive promotional campaign	Principal & PRO	No. of consultancy and Knowledge Transfer Partnership projects	5	6	8
			No. of visitors to CEDAT exhibitions	100	120	150
To improve Government access to pro-policy services, knowledge and advice from CEDAT	Hold regular consultations with relevant govt. officials. Hold regular seminars with govt officials.	Principal & Deans	No. of Government policies influenced	3	5	8
			No. of seminars held with Government officers	2	3	5
To enhance CEDAT competitive position as a technology development and referral institution	Improve website. Improve labs.	Web Administrator System Administrator	Knowledge Transfer Partnership policy and strategy finalised	YES		
			Establish educational and	YES		

			cultural exhibition centres			
			Visibility on the website increased	YES		
To further develop and consolidate CTDD, IHCR (Institute of Heritage, conservation and Restoration) and TECO capacity for consultancy and Knowledge Transfer Partnership services	Obtain institutional approval of CTDD	Principal	Institutional approval for CTDD obtained	YES		
			No. of training programmes for TECO staff and consultants	2	2	3
To engender all Knowledge Transfer Partnership programmes	Submit Knowledge Transfer Partnership programmes to Department of WGS for engendering	HODs	No. of Knowledge Transfer Partnership programmes engendered	2	2	3
			No. of women participating in Knowledge Transfer Partnership and consultancy projects	4	6	8

d) Organisational Management

Objectives	Strategic Interventions	Responsible Personnel	Measures of Success	Implementation Schedules			
				2012	2014	2016	2018
To improve efficiency in management services	Put in place monitoring instrument for gauging use of ICTs	Principal	Increased use of ICT in management functions	50%	60%	70%	80%
			Institute regular surveys of customer satisfaction	1	1	1	1

To establish well-structured and regular information link with departments and staff	Launch weekly journal	PRO & Web Administrator	Weekly electronic journal launched	YES			
			College website regularly up-dated	YES	Yes	YES	YES
To raise CEDAT profile , image and reputation	Organise regular exhibitions and conferences. Write feature articles in newspapers.	PRO	Regular exhibitions and conferences organised	YES	YES	YES	YES
			No. of interactions with the media	2	5	8	8
To build the capacity of leadership and management at all levels	Organise leadership and management courses for all College staff	Principal	No. of leadership and management seminars held for the leaders and managers	1	2	3	4
To integrate gender in all CEDAT activities	Hold regular seminars on gender awareness	HRM	No. of awareness seminars held for staff	1	1	1	1
			% of women in leadership and management positions	10	15	20	30

e) Quality Assurance

Objectives	Strategic Interventions	Responsible Personnel	Measures of Success	Implementation Schedules			
				2012	2014	2016	2018
To increase the capacity to monitor academic performance in a systematic manner and to implement the quality related decisions of the University and CEDAT	Establish student support system. Conduct tracer studies	D/Principal	A fully functional Student Support Service System in place	YES			

			Percentage of graduates employed	60%	70%	80%	90%
To enhance the CEDAT capacity for generating high quality and relevant research output	Strengthen Higher Degrees and research Committee for vetting proposals and reports		No. of publications in citation indices	5	10	15	20
		Deans	No. of publications in internationally refereed journals	10	15	25	40
To provide and maintain high quality academic support systems and infrastructures	Provide all staff with personal computers	Principal	Student support system in place	YES			
			% of staff with personal computers	60%	70%	80%	100%
To secure professional guidance at the macro level in the area of curriculum development	Submit all new programmes to NCHE for accreditation. Submit all programmes to professional bodies for review.	D/Principal	% of programmes accredited by NCHE	60%	80%	100%	100%
			No. of programmes reviewed by professional bodies	ALL	ALL	ALL	ALL
To enhance the integration of issues of equity and equality in the functions of the College	Put in place a mechanism for measuring levels of satisfaction	HRM & Principal	Level of satisfaction by management and staff	60%	70%	80%	90%

f) Human Resources and Gender Mainstreaming

Objectives	Responsible Personnel	Strategic Interventions	Measures of Success	Implementation Schedules			
				2012	2014	2016	2018
To improve staff performance management system in the College.	D/Principal, deans, HOD	Strengthen peer and student assessment of staff	% of staff assessed as good	70%	80%	90%	95%
To improve staff recruitment and retention to match the students' numbers	Principal & HRM	Provide research and consultancy opportunities to staff	Reduced turnover in permanently appointed academic staff (% decrease)	20%	30%	50%	60%
To enhance staff capacity with a view to improving skills	HRM	Regular training and re-training	At least 90% of positions in staff establishments filled by 2015	80%	85%	90%	90%
			Increased number of PhD holders (% increase)	40%	20%	10%	5%
To apprise newly appointed staff members of their roles and responsibilities through training and induction.	HRM	Introduce induction programmes for newly appointed staff	Number of induction and training programmes conducted for all new appointed and promoted staff	1	1	1	1
To address gender imbalances, and implement guidelines for incorporating gender into different College functions	HRM	Launch campaign for encouraging women to join staff	Percentage of female in academic and non academic positions increased to 40% by 2017	10%	15%	25%	40%
			At least 10% women scholars at Senior Lecturer level in the next 5	5%	10%	15%	20%

			years				
To promote gender responsive organizational culture in CEDAT	HRM	Encourage women members of staff to apply for management positions	At least 10% women scholars at senior levels in academics/administration in the next 5 years	5%	10%	15%	20%

g) Laboratory, Library and ICT

Objectives	Responsible personnel	Strategic Interventions	Measures of Success	Implementation Schedules			
				2012	2014	2016	2018
To increase and diversify information resources to cater for expanded CEDAT programmes, research agenda and Quality Assurance	Principal	Increase number of computers and books for staff and students	Increased access and use of library services	30%	25%	15%	10%
			No. of book titles per student	10	15	15	20
To expand space and facilities in the CEDAT library	Principal	Incorporate new library in new building extension	Library moved into new and more spacious room	YES			
To collaborate with other institutions to access rare resource materials	Librarian	Links with East African Universities established	No. of other universities collaborating with	2	4	6	8
To increase access to ICT facilities in the College	Sym Administrator	Increase number of computers	Improved staff and student ratios to computers	1:15	1:10	1:8	1:5

			24hr access to computers and internet	YES	YES	YES	YES
To improve the capacity of staff and students in ICT use	Sysm Administrator	Provide regular training in ICT skills	% of staff and students with ICT skills	70%	75%	80%	90%
			% of staff and students trained in ICT skills	30%	40%	50%	60%
To harness ICTs to improve teaching, learning, research and Knowledge Transfer Partnership	System administrator & Web Administrator	Encourage formatting courses in e-learning mode	% of courses integrating e-learning modes	10%	20%	30%	40%
		Digitise and archive gallery resource material, dissertations and theses	% of materials digitised and archived	10%	20%	30%	40%
To enhance the organization & management of laboratory facilities in the College	Principal	Finalise policy on equipment procurement and maintenance	Lab equipment maintenance policy and regulations in place	YES			
To increase and equip laboratories for specialized applied & basic research. To revamp and modernise workshops	Deans & HODs	Re-vamp labs and workshops	CEDAT labs accredited y UNBS	ALL			

h) Infrastructure, Staff and Student Support services

Objectives	Responsible Personnel	Strategic Interventions	Measures of Success	Implementation Schedules			
				2012	2014	2016	2018
To increase physical space for labs, workshops and lecture rooms	Principal	Fully furnish new extension	Extension of the building completed	YES			
			Furnish all the rooms to match the number of students and staff and equip the laboratories.	50%	70%	90%	100%
			Rehabilitate the existing buildings	40%	60%	80%	100%
To improve access for persons with disabilities	Principal	Provide lift and ramps	Facilities for persons with disabilities put in place	YES			
			Facilities accessed by disabled persons	50%	60%	80%	100%
To create a positive environment for staff and students	Principal & HRM	Increase number of staff offices. Improve student canteen	Student and staff facilities increased and improved	YES			
			Increased number of staff and students using the facilities	50%	10%	10%	10%
		Improve career guidance and counselling services	Student and staff guidance and counselling facilities improved	YES			
To promote student activities in governance	Principal & HRM	Delegate some management functions to students	% of staff and students participating in College functions	30%	40%	50%	60%
			Student professional organisations supported financially	YES	YES	YES	YES
To provide orientation	PRO	Print high	Brochures and handbooks	YES	YES	YES	YES

programmes with high quality information, advice		quality brochures about College programmes and functions	distributed to students during orientation week				
			Staff meeting students during orientation week	YES	YES	YES	YES

i) Resource Mobilisation, Investment and Financial Management

Objectives	Responsible Personnel	Strategic Interventions	Measures of Success	Implementation Schedules			
				2012	2014	2016	2018
To mobilise resources through various sources.	Principal & Project development officer	Mobilise resources and funds to implement projects	Amount of resources mobilised and investments made(m\$)	0.05	0.1	0.2	0.4
			No. of partnerships with private sector	YES			
			Up to date list of alumni	50%	70%	90%	100%

j) Internationalisation

Objectives	Responsible Personnel	Strategic Interventions	Measures of Success	Implementation Schedules			
				2012	2014	2016	2018
To have more international students	D/Principal & Deans	Admit more international students	% of international students	2%	3%	4%	5%
To have more students on short study visits	D/Principal & Deans	Have flexible programme credits can easily be transferred.	No. of foreign students attending a few courses at Makerere	YES			

3.4 Indicative Student Enrolment And income By Year

YEAR	CUM. % INCREASE	TOTAL STUDENT ENROLMENT	INCOME (SHS)	STAFF/ STUDENT RATIO	FLOOR AREA PER STUDENT
2000		1200	0.86 BN	1:12	5.0 SQM.
2001		1250	0.90 BN	1:13	4.8 SQM.
2002		1300	0.94 BN	1:13	4.6 SQM.
2003		1350	0.98 BN	1:14	4.4 SQM.
2004		1400	1.02 BN	1:12	4.3 SQM
2005		1450	1.06 BN	1:12	4.1 SQM
2006		1650	1.21 BN	1:14	3.6 SQM
2007		1850	1.36 BN	1:14	3.2 SQM
2008	5%	2000	1.47 BN	1:14	6.5 SQM
2009	10%	2200	1.54 BN	1:15	5.9 SQM
2010	15%	2300	1.61 BN	1:14	5.7 SQM
2011	20%	2400	1.68 BN	1:15	5.4 SQM
2012	25%	2500	1.75 BN	1:14	5.2 SQM
2013	30%	2600	1.82 BN	1:15	5.0 SQM
2014	35%	2700	1.89 BN	1:15	4.8 SQM
2015	40%	2800	1.96 BN	1:15	4.6 SQM
2016	45%	2900	2.03 BN	1:16	4.5 SQM
2017	50%	3000	2.10 BN	1:15	4.3 SQM
2018	0%	3000	2.10 BN	1:15	4.3 SQM

ASSUMPTIONS:

1. Fees based on current rates
2. Staffing levels will increase from 160 in 2011 to 200 by 2018